Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of Petition of Ad Hoc Telecommunications Users Committee, BT Americas, Cbeyond, Computer & Communications Industry Association, EarthLink, MegaPath, Sprint Nextel, and tw telecom To Reverse Forbearance from Dominant Carrier Regulation of Incumbent LECs' Non-TDM-Based Special Access Services	WC Docket No. 05-25 RM-10593

COMMENTS OF VERIZON AND VERIZON WIRELESS

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COMMENTS OF VERIZON AND VERIZON WIRELESS[1]

The Commission should reject the petition to reverse the forbearance from dominant carrier regulation and *Computer Inquiry* requirements granted to the Verizon Telephone Companies ("Verizon"), AT&T Inc. ("AT&T"), BellSouth Corporation ("BellSouth"), the legacy Embarq Local Operating Companies ("legacy Embarq"), the Frontier and Citizens ILECs ("Frontier"), and legacy Qwest Corporation ("legacy Qwest") in their provision of enterprise broadband services.

When AT&T, BellSouth, legacy Embarq, Frontier, and legacy Qwest obtained forbearance, the Commission predicted that forbearance would foster competition and innovation in the enterprise broadband services marketplace. The Commission was right. In recent years, enterprise broadband services have grown increasingly competitive. They are poised to grow even more competitive as innovative technologies and rapidly expanding demand for bandwidth create new opportunities for both existing service providers and new entrants.

[1] In addition to Verizon Wireless, the Verizon companies participating in this filing are the regulated, wholly owned subsidiaries of Verizon Communications Inc. (collectively, "Verizon").

Competition is exploding with respect to two of the most critical enterprise broadband services: business Ethernet and wireless backhaul services. Over the past five years alone, Ethernet use has increased ten-fold. Today, at least half of the ten largest Ethernet providers nationwide are competitive carriers. Each of the major cable companies is providing Ethernet services to business customers. They report rapidly growing revenues for these services. Cable companies have also established themselves as major mobile backhaul providers. Their revenues from mobile backhaul services are expected to reach approximately $600 million in 2012, and approach $900 million by 2015. Verizon has felt this trend's effects, experiencing intense competition for wireless backhaul services within its region. Recently, Verizon bid to supply Sprint with wireless backhaul within Verizon's region to support Sprint's aggressive network expansion. Verizon won *fewer than 6 percent* of the sites within its region, and Sprint announced that it had selected 25 to 30 other significant providers — including cable operators and fixed wireless providers — to meet its nationwide backhaul services needs.

Despite this mounting evidence, Petitioners ask the Commission to reverse course. They ask the Commission to re-impose regulation eliminated through forbearance so that these enterprise broadband services would be regulated to the same extent as traditional, TDM-based special access services. But Petitioners do not even attempt to offer evidence that market forces have failed to protect customers' interests. Instead, Petitioners attack the merits of the forbearance decisions the Commission made five or more years ago. They contend that the Commission erred when it analyzed the factual record using a framework crafted specifically for dynamic marketplaces, instead of a traditional market power analysis. But this line of argument is misguided. The Commission's predictive judgment has proven correct. It did not err. Moreover, the thirty days Petitioners had to request that the Commission reconsider its

forbearance decisions on the record that existed at that time have long since passed. To convince the Commission to re-impose regulation, Petitioners must show that additional enterprise broadband regulation is necessary to further the Communications Act's goals based on a new record that reflects the current state of competition for these services. Petitioners could not make that showing — no different from the showing required in a rulemaking — even if they had tried.

The Commission's recent Report and Order and Further Notice of Proposed Rulemaking in WC Docket No. 05-25 and RM-10593 ("*Notice*") confirms that Petitioners' strategy of advocating for new regulation based on outdated data is doomed to fail.[2] There, the Commission found that there was insufficient evidence to substantiate claims of inadequate competition for special access and, therefore, no grounds to impose additional regulations on special access services. The Commission stated in no uncertain terms that it would not draw general or categorical conclusions about the competitiveness of the special access marketplace based on incomplete or outdated data.

Furthermore, Petitioners' attack on the Commission's long-standing view that it should analyze enterprise broadband services using a forward-looking approach that accounts for all forms of actual and potential competition lacks merit. The Commission has applied this type of framework to enterprise broadband services for the last *eight years*. The D.C. Circuit approved this approach in *EarthLink, Inc. v. FCC*[3] over the same sorts of arguments Petitioners raise here, and the Commission recently reaffirmed its commitment to this approach in the *Notice*.[4] Petitioners' recycled criticisms of this framework offer no basis for the Commission to change

[2] Report and Order and Further Notice of Proposed Rulemaking, *Special Access for Price Cap Local Exchange Carriers*, 27 FCC Rcd 16318 (2012) ("*Notice*").

[3] 462 F.3d 1 (D.C. Cir. 2006).

[4] *Notice* ¶ 67.

the way it analyzes the broadband marketplace. The Commission should reject Petitioners' invitation to change course.

ARGUMENT

I. COMPETITION FOR ENTERPRISE BROADBAND SERVICES IS EVEN GREATER TODAY THAN WHEN FORBEARANCE WAS GRANTED

Section 10 of the Communications Act, 47 U.S.C. § 160, allows a telecommunications carrier to file a petition requesting that the Commission forbear from applying particular Communications Act provisions or FCC rules to that carrier. Congress introduced this provision as part of a broader strategy to "promote competition and reduce regulation . . . and encourage the rapid deployment of new telecommunications technologies."[5] It is designed for those circumstances where "newly competitive conditions" have made "the heavy-handed regulation of incumbent carriers obsolete."[6] Section 10 is, as both Congress and the Commission have recognized, "[a]n integral part of the [Act's] 'pro-competitive, de-regulatory national policy framework.'"[7]

Under Section 10, the Commission must grant forbearance "if enforcement is unnecessary to ensure that rates and practices are just, reasonable, and not unreasonably discriminatory; enforcement is unnecessary to protect consumers; and forbearance is consistent with the public interest, in that it 'will promote competitive market conditions' and 'enhance

[5] Pub. L. No. 104-104, 110 Stat. 56, 56 (1996).

[6] *Qwest Corp. v. FCC*, 689 F.3d 1214, 1217 (10th Cir. 2012).

[7] Memorandum Opinion and Order, *Petition of AT&T Inc. for Forbearance Under 47 U.S.C. § 160(c) from Title II and Computer Inquiry Rules with Respect to Its Broadband Services; Petition of BellSouth Corporation for Forbearance Under 47 U.S.C. § 160(c) from Title II and Computer Inquiry Rules with Respect to Its Broadband Services*, 22 FCC Rcd 18705, ¶ 16 (2007) ("*AT&T Forbearance Order*") (quoting Joint Explanatory Statement of the Committee of Conference, S. Conf. Rep. No. 230, 104th Cong., 2d Sess. 113 (1996)).

competition among providers of telecommunications services.'"[8] Section 10 also provides that if the Commission does not deny forbearance by a statutory deadline, forbearance is "deemed granted."[9]

In 2006, Verizon's forbearance petition for its enterprise broadband services was "deemed granted."[10] In 2007 and 2008, the Commission granted in part comparable forbearance petitions that AT&T, BellSouth, legacy Embarq, Frontier, and legacy Qwest submitted (the "*Forbearance Orders*").[11] In the *Forbearance Orders*, the Commission predicted that forbearance would "increase even further the amount of competition in the marketplace" for enterprise broadband services, "thus helping ensure that the rates and practices for these services overall are just, reasonable, and not unreasonably discriminatory."[12]

The Commission found that providers faced enough "pressure from actual and potential competition" to give them an "incentive to offer innovative services" and to protect consumers.[13] As a result, a "deregulatory approach" to the provision of enterprise broadband services would

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[8] *Ad Hoc Telecomm. Users Comm. v. FCC*, 572 F.3d 903, 907 (D.C. Cir. 2009) (quoting 47 U.S.C. § 160).

[9] 47 U.S.C. § 160(c).

[10] *See* FCC News Release, *Verizon Telephone Companies' Petition for Forbearance from Title II and Computer Inquiry Rules with Respect to their Broadband Services Is Granted by Operation of Law* (Mar. 20, 2006); *Sprint Nextel Corp. v. FCC*, 508 F.3d 1129, 1132 (D.C. Cir. 2007).

[11] *AT&T Forbearance Order*; *Petition of the Embarq Local Operating Companies for Forbearance Under 47 U.S.C. § 160(c) from Application of Computer Inquiry and Certain Title II Common-Carriage Requirements, et al.*, Memorandum Opinion and Order, 22 FCC Rcd 19478 (2007) ("*Embarq & Frontier Forbearance Order*"); *Qwest Petition for Forbearance Under 47 U.S.C. § 160(c) from Title II and Computer Inquiry Rules with Respect to Broadband Services*, Memorandum Opinion and Order, 23 FCC Rcd 12260 (2008) ("*Qwest Forbearance Order*") (collectively, the "*Forbearance Orders*").

[12] *AT&T Forbearance Order* ¶ 35; *see Embarq & Frontier Forbearance Order* ¶ 34; *Qwest Forbearance Order* ¶ 38.

[13] *AT&T Forbearance Order* ¶ 43; *see Embarq & Frontier Forbearance Order* ¶ 42; *Qwest Forbearance Order* ¶ 46.

"serve the public interest by eliminating market distortions" and "furthering the deployment of advanced services."[14] It predicted that forbearance would give providers "the flexibility necessary to respond to dynamic price and service changes."[15] The Commission also noted that forbearance would be "entirely consistent with section 706," which provides that the Commission "shall encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans," and "Congress's express goals" of promoting competition, reducing regulation, and encouraging new technologies.[16] With respect to each provider, the Commission concluded that Section 10's criteria were satisfied.[17]

In the five years since the Commission issued the last of the *Forbearance Orders*, marketplace developments have vindicated the Commission's predictive judgment that dominant carrier regulation and certain *Computer Inquiry* requirements are no longer necessary to ensure just and reasonable rates or to protect consumers of enterprise broadband services. Verizon's own experience during that time, as well as extensive evidence from industry analysts and other public sources, shows that competition for enterprise broadband services is thriving, particularly for key marketplace segments like Ethernet and wireless backhaul services. In the time since it obtained forbearance, Verizon has entered into approximately 3,300 private carriage contracts with unaffiliated carriers for non-TDM based services, valued at more than $3.7 billion over their

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[14] *AT&T Forbearance Order* ¶¶ 46, 47; *see Embarq & Frontier Forbearance Order* ¶¶ 45, 46; *Qwest Forbearance Order* ¶¶ 49, 50.

[15] *AT&T Forbearance Order* ¶ 35; *see Embarq & Frontier Forbearance Order* ¶ 34; *Qwest Forbearance Order* ¶ 38.

[16] *AT&T Forbearance Order* ¶ 47 (quoting 1996 Act Preamble, 110 Stat. 56); *see Embarq & Frontier Forbearance Order* ¶ 46; *Qwest Forbearance Order* ¶ 50.

[17] The D.C. Circuit rejected a challenge to two of the *Forbearance Orders*, upholding "the Commission's judgment that dominant-carrier pricing regulation is unnecessary to ensure just, reasonable, and nondiscriminatory rates and the protection of consumers, and that partial forbearance is consistent with the public interest." *Ad Hoc*, 572 F.3d at 911.

lifetime. This includes contracts with five of the petitioners — tw telecom, Sprint, MegaPath, EarthLink, and Cbeyond. These carriers voluntarily negotiated these contracts, and bargained for the terms and conditions they contain. Competition is, as the Commission has recognized, "the most effective means of ensuring that . . . charges, practices, classifications, and regulations . . . are just reasonable, and not unjustly or unreasonably discriminatory,"[18] as well as "the best means to bring the fruits of investment and innovation — including lower prices, new services and features, higher service quality and choice — to the American people."[19]

Petitioners have not offered *any* persuasive evidence that the marketplace for enterprise broadband services is insufficiently competitive, much less evidence that a market failure led to enterprise broadband customers paying unjust, unreasonable, and unreasonably discriminatory rates. The few anecdotes and stale reports on which Petitioners rely fall well short of what is required for the Commission to make "general or categorical conclusions" about the competitiveness of the marketplace.[20]

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[18] Memorandum Opinion and Order, *Petition of Qwest Corporation for Forbearance Pursuant to 47 U.S.C. § 160(c) in the Phoenix, Arizona Metropolitan Statistical Area*, 25 FCC Rcd 8622, ¶ 41 (2010) ("*Qwest Phoenix Order*") (quoting Memorandum Opinion and Order, *Petition of US WEST Communications, Inc., for a Declaratory Ruling Regarding the Provision of National Directory Assistance, Petition of US WEST Communications Inc., for Forbearance, The Use of N11 Codes and Other Abbreviated Dialing Arrangements*, 14 FCC Rcd 16252, ¶ 31 (1999)).

[19] *Connecting America: The National Broadband Plan*, 2010 WL 972375, at *30 (F.C.C. Mar. 16, 2010).

[20] *Notice* ¶ 69; *see id.* ¶ 70 ("[T]he Commission cannot gauge the extent of competition based on a single market characteristic, such as purchase prices, carrier revenues, or market share."); *id.* ¶¶ 23-26 (explaining the need to collect data from providers nationwide); *id.* ¶¶ 27-29 (explaining the need to collect data from two recent years, 2010 and 2012); *see generally id.* ¶ 78 ("The record makes clear that we are unlikely to be able to conduct a comprehensive market analysis . . . without the data similar to that described above and a more detailed review of competitive conditions in the special market than has been possible to date.").

A. Competition for Business Ethernet Services is Growing

Since the Commission granted forbearance, demand for Business Ethernet services has exploded. Customers increasingly use these services as an alternative to ATM, Frame Relay, SONET, and Private Line services.[21] Over the past five years, there has been a "10x surge" in Ethernet use,[22] which is replacing "legacy services such as SONET, Frame Relay and ATM because it provides more flexible bandwidth options and is highly scalable, which in turn makes it highly cost efficient."[23] In 2011 alone, Ethernet ports in the United States grew 31 percent with revenues "topp[ing] $6 billion in 2011,"[24] and in 2012, Ethernet ports in the United States

[21] Frost & Sullivan, *Demystifying Carrier Ethernet Services: No One Size Fits All*, BCS 5-02, at 1 (Apr. 6, 2011) ("Frost & Sullivan, *Demystifying Carrier Ethernet Services*") (Ethernet "is a scalable, reliable and cost-efficient transport service," which provides "an attractive service option for customers migrating from ATM, Frame Relay, SONET and Private Line services."); *see also* Nav Chandler, IDC, *U.S. Carrier Ethernet Services 2012-2016 Forecast*, IDC #237543, at 2 (Oct. 2012) (Enterprise customers are increasingly "utilizing Ethernet services for domestic and international WAN networking and metro area connectivity and also for access to other services, such as to the Internet or IP VPNs.").

[22] Vertical Systems Group, *U.S. Ethernet Bandwidth Surpasses Legacy Bandwidth: Milestone Coincides with the MEF's Ten Year Anniversary* (July 26, 2011), *available at* http://verticalsystems.com/prarticles/stat-flash-2011-July.html.

[23] Colby Synesael & Jonathan Charbonneau, Cowen and Company, *Telecom and Data Services, Industry Overview, Fiber: A Sector Evolves* at 14 (Oct. 29, 2010), *available at* http://www.jamiescotto.com/JSA_Newsletter/documents/TelecomServices10292010.pdf; Ron Kline, Ovum, *Market Segment Profile: Carrier Ethernet*, at 2 (Oct. 2011).

[24] Vertical Systems Group, *Ethernet Services Top $6 Billion in 2011: Revenue for U.S. Ethernet Services Exceeded $6 Billion in 2011 Despite Price Compression* (Jan. 24, 2012), *available at* http://www.verticalsystems.com/prarticles/stat-flash-jan-2012_US%202011Ethernet_rev_exceeds$6B.html.

grew another 24 percent.[25] Industry analysts predict that "Ethernet revenue for the industry will generate a [compound annual growth rate] of over 20% for the foreseeable future."[26]

Increasing demand for business Ethernet service has attracted and facilitated increased competition and innovation. Frost & Sullivan has found that providers "are increasingly focusing on enhancing the depth of their offerings," and "there are more flavors of Ethernet available today in the market as compared to three years ago, which provides business customers with more choices."[27] Other analysts note that because of the influx of "multiple suppliers," "[p]ricing pressure on the carrier Ethernet services market continues to accelerate" because "Ethernet users expect a lower price per bit."[28]

Business Ethernet services are "being offered by numerous non-incumbents, including [cable] MSOs, CLECs and formerly IP/MPLS virtual network operators (VNOs)."[29] The top five business Ethernet service providers include tw telecom (#3) and Cox (#5).[30] tw telecom

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[25] Vertical Systems Group, *2012 U.S. Business Ethernet LEADERBOARD* (Jan. 29, 2013), *available at* http://www.verticalsystems.com/prarticles/stat-flash-YE_2012_US_Leaderboard.html ("Vertical Systems Group, *2012 U.S. Business Ethernet LEADERBOARD*").

[26] *Q2 2011 tw telecom Inc. Earnings Conference Call — Final*, FD (Fair Disclosure) Wire, Transcript 080911a4167350.750 (Aug. 9, 2011) (statement by tw telecom EVP and CFO Mark Peters).

[27] Frost & Sullivan, *Demystifying Carrier Ethernet Services* at 1.

[28] Ron Kline, Ovum, *Market Segment Profile: Carrier Ethernet*, at 2 (Oct. 2011). *See also* Nav Chandler & Courtney Munroe, IDC, *U.S. Frame Relay and ATM Services 2011-2015 Forecast and Analysis*, IDC #230578, at 4, 8 (Table 7) (Sept. 2011); Nav Chandler, IDC, *U.S. Private Line 2011-2015 Forecast and Analysis*, IDC #228077, at 2 (May 2011); Frost & Sullivan, *Demystifying Carrier Ethernet Services* at 1.

[29] Charles Carr, Yankee Group, *Forecast: Carrier Ethernet Is Finally Unleashed*, at 4 (Apr. 26, 2011).

[30] Vertical Systems Group, *2012 U.S. Business Ethernet LEADERBOARD*.

states that it has "Ethernet ubiquity across 75 markets,"[31] that it provides these services using its "extensive fiber facilities," which "connect[] to 17,948 buildings served directly by [tw telecom's] local fiber facilities," and that it "continue[s] to extend [its] fiber footprint within [] existing markets."[32] Cox claims that it serves "more than 20,000 fiber commercial locations"; that Metro Ethernet is available "at a large number of locations served by Cox's Fiber-To-The-Premise or Hybrid Fiber Coax (HFC) networks"; that it is "deploying a seamless Ethernet platform across all of [its] markets as quickly as [it] can"; and that it is "providing Ethernet-based services over [its] HFC [network] . . . as well as fiber."[33]

Rounding out the top eight business Ethernet service providers are Level 3 (#6), XO (#7), and Time Warner Cable (#8).[34] Level 3 touts its "extensive and diverse network" that claims "[o]ver 100,000 enterprise buildings within 500 ft."[35] XO states that its network includes more

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[31] tw telecom, *Wholesale Ethernet, Wholesale IP, Wholesale Transport Services*, *available at* http://www.twtelecom.com/telecom-solutions/wholesale-ethernet.

[32] tw telecom inc., Form 10-K, at 4 (SEC filed Feb. 15, 2013), *available at* http://www.sec.gov/Archives/edgar/data/1057758/000105775813000008/twtc201210-k.htm.

[33] Cox Communications, *Metro Ethernet for Financial Institutions, available at* http://ww2.cox.com/wcm/en/business/datasheet/metro-ethernet-brochure-finance.pdf; Cox Communications, *Metro Ethernet*, *available at* http://ww2.cox.com/business/data/metro-ethernet.cox; FierceTelecom, *Cox Business: Anticipating Carrier, Commercial Ethernet Growth* (Jan. 5, 2011), *available at* http://www.fiercetelecom.com/special-reports/phil-meeks-vice-president-cox-business-reaching-its-1-billion-sales-milesto (Cox Business Senior Vice President Phil Meeks).

[34] Vertical Systems Group, *2012 U.S. Business Ethernet LEADERBOARD*.

[35] Level 3 Communications Press Release, *Level 3 Deepens Commitment to Financial Services Industry with Two New Ultra-Low-Latency European Routes* (Jan. 4, 2011), *available at* http://level3.mediaroom.com/index.php?s=23600&item=65053; Level 3 Communications, *2011 Annual Meeting of Stockholders Presentation*, at 3 (May 19, 2011), *available at* http://files.shareholder.com/downloads/LVLT/2168870475x0x469486/f0c304e5-b9ea-4c17-a9b6-bd3a8088c521/Level%203%20Communications%20Annual%20Meeting_May%202011_FINAL.pdf.

than 3,300 buildings on-net in 41 U.S. cities.[36] Time Warner Cable operates networks in 31 states, covering 42 MSAs,[37] and reports that it "now ha[s] 550,000 business services customer relationships," and that "Metro Ethernet and direct Internet access products [] generated more than a third of business services, high-speed data revenue in [the third quarter of 2012]."[38]

At least 29 other companies are providing business Ethernet services: Alpheus Communications, American Telesis, Bright House Networks, BT Global, Charter Business, Cogent, Comcast Business, EarthLink Business, Expedient, FiberLight, Fibertech, Integra, IP Networks, Lightpath, Lightower, LS Networks, Lumos Networks, Masergy, MegaPath, NTT America, Orange Business, Reliance Globalcom, Sidera Networks, Sprint, SuddenLink, US Signal, Virtela, Windstream (including PAETEC), and Zayo Group (including AboveNet).[39] Comcast Business states that "[w]ith over 147,000 national route miles of fiber, [its] network is the largest facilities-based last mile alternative to the phone company"[40] and that Ethernet services are available throughout its entire cable footprint.[41] Charter Business has deployed

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[36] XO Communications, *The XO Network* (Aug. 13, 2012), *available at* http://www.xo.com/SiteCollectionDocuments/carrier-services/Network%20Overview.pdf.

[37] Frost & Sullivan, *Cable MSO Ethernet Strategy: Moving Up-Market for New Opportunities*, BCS 6-3, at 13, Figure 1 (Mar. 2012) ("Frost & Sullivan, *Cable MSO Ethernet Strategy*").

[38] *Q3 2012 Time Warner Cable Inc. Earnings Conference Call — Final*, FD (Fair Disclosure) Wire, Transcript 110512a4908223.723 (Nov. 5, 2012) (statement by Time Warner Cable President & COO Rob Marcus).

[39] Vertical Systems Group, *2012 U.S. Business Ethernet LEADERBOARD*.

[40] Comcast, *Comcast Business Class — The Comcast Network*, *available at* http://business.comcast.com/docs/general-docs/Network_Brochure.pdf?sfvrsn=0.

[41] *Comcast Corporation at Wells Fargo Technology Media & Telecom Conference — Final*, FD (Fair Disclosure) Wire, Transcript 110712a4939421.721 (Nov. 7, 2012) (statement by Comcast Vice Chairman & CFO Michael Angelakis); *see also Frost & Sullivan, Cable MSO Ethernet Strategy* at 14 ("The company's focus is to expand availability to more and smaller metro areas, provide dense high-speed access by capitalizing on its existing fiber and HFC networks, and national reach through interconnecting its metro networks.").

more than 55,000 route miles of fiber nationwide,[42] which connect to more than 5,600 buildings, and the company reports an additional "8,000 buildings located within 1,000 feet of the network."[43] Lightpath has deployed "an advanced fiber optic network extending more than 5,200 route miles, which includes approximately 274,000 miles of fiber, throughout the New York metropolitan area," and more than 5,800 buildings on-net.[44] Appendix A provides additional detail on the enterprise broadband offerings of many of these competitive providers.

As the rankings confirm, cable companies continue to make significant investments in their capacity to provide business Ethernet services and are competing successfully for customers.[45] According to analysts, from 2012 to 2017, cable companies' "commercial services revenue will grow from $7.6 billion to $12.3 billion at a [compound annual growth rate] of 10.0 percent."[46] Compared to even a few years ago, cable operators are offering a much wider range of Ethernet services — including "Ethernet private line (EPL), Ethernet virtual private line

[42] Frost & Sullivan, *Cable MSO Ethernet Strategy* at 13.

[43] Charter Business, *Carrier Solutions Connection* (Mar. 2012), *available at* http://www.charterbusiness.com/network-partner-connection/2012/march/default.aspx.

[44] Cablevision Systems Corp., Form 10-K, at 2 (SEC filed Feb. 28, 2013), *available at* http://www.sec.gov/Archives/edgar/data/784681/000114036113009832/form10k.htm.

[45] Frost & Sullivan, *Cable MSO Ethernet Strategy* at 5 (Mar. 2012) ("To satisfy [ ] exploding demand for high-capacity and very high-reliability connectivity, mid-market businesses are turning to Ethernet-based solutions. As such, the cable multi-system operators (MSOs) are aggressively expanding their network reach beyond their traditional footprints, cross-country, with an extensive range of Ethernet and hybrid WAN, MAN and [mid-band Ethernet (MBE)] access solutions."); *id.* at 6 ("The MSOs began to transform their business strategy and services mix as early as a decade ago; but, until the last few years, were not competitive in the more complex, metro-WAN networking environment. However, their product sets, network reach and capabilities have evolved extensively during this time to a level competitive with the ILECs — and to the benefit of the mid-market businesses taking advantage of this situation.").

[46] The Insight Research Corporation, *The 2013 Telecommunications Industry Review: An Anthology of Market Facts and Forecasts, 2012-2017*, at 297 (Jan. 2013).

(EVPL), Ethernet LAN service, Ethernet over Fiber . . . , and hybrid Ethernet over multiprotocol label switching (MPLS)."[47]

In April 2012, "executives from three major U.S. cable companies [Comcast, Time Warner Cable, and Bright House Networks] said they'll keep pouring more resources into business services initiatives in 2012, after strong growth over the past several years."[48] Cox, which "became the first cable operator to reach $1 billion in annual commercial service revenue, is shooting to hit $2 billion by 2016," and expects to "doubl[e] its market share" with small businesses and its "wholesale carrier revenue over the next four years."[49] Charter experienced its "seventh consecutive quarter of [commercial revenue] growth in excess of 20%" in the fourth quarter of 2012,[50] and states that it "continue[s] to see significant opportunity in the commercial space with a long runway for growth and [is] making investments to capitalize on the opportunity in [its] footprint."[51] Cablevision reported an increase in Lightpath net revenues in 2012, which it states was "primarily attributable to growth in Ethernet data services, partially offset by reduced traditional data services."[52]

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[47] Frost & Sullivan, *Cable MSO Ethernet Strategy* at 7 (Mar. 2012).

[48] *Cable Operators See More Money in Business Services,* Communications Daily (Apr. 6, 2012).

[49] *Cable Providers Push into Middle Market and Enterprise Sectors*, Communications Daily (Jan. 3, 2012).

[50] Charter Communications Inc. Press Release, *Charter Announces Fourth Quarter and Full Year 2012 Results* (Feb. 22, 2013), *available at* http://phx.corporate-ir.net/phoenix.zhtml?c=112298&p=irol-newsArticle&ID=1787974&highlight=.

[51] *Q2 2012 Charter Earnings Conference Call - Final*, FD (Fair Disclosure) Wire, Transcript 080712a4849915.715 (Aug. 7, 2012) (statement by Charter EVP and CFO Chris Winfrey).

[52] Cablevision Systems Corp., Form 10-K, at 59 (SEC filed Feb. 28, 2013), *available at* http://www.sec.gov/Archives/edgar/data/784681/000114036113009832/form10k.htm.

B. There Is Extensive Competition for Mobile Wireless Backhaul Services

There is also extensive and growing competition for mobile backhaul services. Analysts project that demand for mobile backhaul will grow by 9.7 times between 2011 and 2016.[53] With this growth will come opportunities for expansion and entry. As Insight Research notes, the "large-scale 'mass migration' of wireless backhaul from TDM to Ethernet," requiring new fiber deployment, has been a "specific factor contributing to particularly rapid growth" of Ethernet service.[54] The marketplace is "rife with a large array of operators, including incumbent local exchange carriers (ILECs), competitive local exchange carriers (CLECs), cable multiple system operators (MSOs), fiber-based providers, microwave operators, and resellers."[55] Competitive wholesalers "are being particularly aggressive in targeting new wireless backhaul opportunities," while cable operators "such as Charter Communications, Comcast Business, Cox Carrier Services and Time Warner Cable Business Class have become a credible threat in the wireless backhaul race."[56]

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[53] *See U.S. Mobile Backhaul Demand Forecast To Grow More Than Nine Times in the Next Four Years* (Mar. 13, 2012), *available at* http://www.fiercemobilecontent.com/press-releases/us-mobile-backhaul-demand-forecast-grow-more-nine-times-next-four-years. The global demand for mobile backhaul equipment is projected to reach $10.4 billion in 2014 (compared to $7.2 billion in 2009). *See* Infonetics Research Press Release, *Shift Seen in Operator Strategy for Mobile Backhaul; Equipment Spending Up 21%* (Apr. 21, 2010), *available at* http://www.infonetics.com/pr/2010/Mobile-Backhaul-and-Microwave-Market-Highlights.asp.

[54] Insight Research Corporation, *Carrier and Ethernet Services: Public Ethernet in Metro & Wide Area Networks 2011-2016*, at 7 (Aug. 2011).

[55] Frost & Sullivan, *U.S. Mobile Backhaul Services Market: Wireless Service Provider Spending Trends*, BCS5-8, at 6 (Oct. 2011) ("Frost & Sullivan, *U.S. Mobile Backhaul Services Market*"); *see also* Jennifer Pigg, Yankee Group, *4G Trends, Wholesale Mobile Backhaul: There's Gold in Them There Hauls* at 4 (June 2011); Synesael & Charbonneau, *Telecom and Data Services, Industry Overview, Fiber: A Sector Evolves* at 17-18.

[56] Sean Buckley, FierceTelecom, *Telco BackHaul Strategies: Wireline Wholesale Carriers Feed Off the Wireless Backhaul Bonanza* at 2 (Nov. 2011), ebook *available at* http://www.zayo.com/sites/default/files/fiercetelecom-mobile-backhaul-ebook11.14.11.pdf.

Cable providers' revenues from mobile backhaul services were approximately $600 million in 2012, and they are expected to reach approximately $900 million by 2015.[57] Comcast — which has "increased [its] number of installed towers by about 79% since 2010"[58] — "anticipates the addressable backhaul market within its footprint is roughly $1 billion."[59] Analysts have found that this "[g]reater competition among vendors, as well as competing backhaul platforms, is creating downward pricing pressures for backhaul service providers; which, in turn, is impacting their revenues and profitability."[60]

Sprint's aggressive expansion into the mobile wireless services market further confirms that this is a fiercely competitive market. In 2011, Sprint announced that it had awarded contracts for backhaul expansion for 15,000 sites, and it expected to award contracts for an *additional* 15,000 sites in mid-2012.[61] Sprint has stated that as a result of this competitive bidding process, it "will end up with '*25 to 30 significant backhaul providers*,' that will likely be a mix of incumbent LECs, cable MSOs and alternative carriers, all of whom will be expected to deliver Ethernet predominantly over fiber for Sprint's new multi-mode network."[62] Sprint has attested that this expansion will provide it substantial "flexibility" in reducing its backhaul costs, telling investors that, while it previously was "basically a T1 organization," it now has the

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[57] Jeff Baumgartner, *Cable's Cut of the Biz Services Pie To Eclipse $7B*, Light Reading (Nov. 29, 2012), *available at* http://www.lightreading.com/document.asp?doc_id=227457&site=lr_cable&f_src=lrdailynewsletter (citing Heavy Reading Senior Analyst Alan Breznick).

[58] *Q1 2012 Comcast Corporation Earnings Conference Call — Final*, FD (Fair Disclosure) Wire, Transcript 050212a4767051.751 (May 2, 2012) (statement by Comcast Chairman & CEO Brian Roberts).

[59] Jennifer Pigg, Yankee Group, *4G Trends, Wholesale Mobile Backhaul: There's Gold in Them There Hauls* at 4 (June 2011).

[60] Frost & Sullivan, *U.S. Mobile Backhaul Services Market* at 6.

[61] *See* Carol Wilson, *Sprint To Reveal Backhaul Contract Winners Friday,* Light Reading (Oct. 5, 2011), *available at* http://www.lightreading.com/document.asp?doc_id=213050.

[62] *Id.* (emphasis added).

"opportunity to use fiber or microwave and we choose site by site,"[63] and, as a result, has "a very much improved cost structure."[64] A Sprint executive recently explained to analysts that "all of [Sprint's] towers will be Ethernet," and "for roughly the same cost of $1,500 a month" for three T1 lines at each tower, "you have almost 20 times the bandwidth through that location," at approximately "100 megabits per second even though it's scalable to more than that."[65]

When Sprint put up approximately 38,000 cell sites for bid, including a large number in Verizon's region, Verizon faced extensive competition.[66] Verizon responded to Sprint's RFQ with pricing and availability at the sites in its region, but was awarded the backhaul business at less than six percent of the sites in the Verizon incumbent footprint.[67] Although Verizon has no direct information about what Sprint did with the contracts and sites Verizon did not win, public reports indicate that "all cable operators are involved."[68]

Dramatic increases in wireless data traffic are fueling this competition for mobile backhaul services,[69] and making it necessary to upgrade to higher-capacity facilities in all areas.

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[63] *Sprint 4G Strategy/Network Update — Final*, FD (Fair Disclosure) Wire, Transcript 100711a4207432.732 (Oct. 7, 2011).

[64] *Id.* (statement by Steve Elfman, President, Sprint - Network Operations & Wholesale).

[65] *Sprint Nextel Corporation at Pacific Crest Global Leadership Technology Forum — Final*, FD (Fair Disclosure) Wire (Aug. 13, 2012) (statement by Sprint VP, Strategic Programs Marty Nevshemal).

[66] Nomura Equity Research Report, Sprint Nextel Corporation: Takeaways from Meetings with Management, at 2, attached to Ex Parte Letter from Donna Epps, Verizon, to Marlene Dortch, FCC, WC Docket No. 05-25 & RM-10593 (July 24, 2012) ("Nomura Equity Research Report").

[67] *See* Ex Parte Letter from Kathleen Grillo, Verizon, to Marlene Dortch, FCC, WC Docket No. 05-25 & RM-10593 (Sept. 12, 2012).

[68] Nomura Equity Research Report at 2.

[69] Commission staff reported a year ago that "mobile data demand is expected to grow between 25 and 50 times current levels within 5 years." FCC Staff Technical Paper, *Mobile Broadband: The Benefits of Additional Spectrum* at 5 (Oct. 2010), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-302324A1.pdf.

As Level 3 explained, 4G data services are "really the catalyst for the ubiquity of Ethernet and the ubiquity of fiber to the tower."[70] Demand for mobile backhaul is projected to grow by 9.7 times between 2011 and 2016.[71] Moreover, this "[g]reater competition within the mobile backhaul services market" is "having a negative effect on the prices for emerging platforms such as Ethernet."[72] Another report projects that the microwave equipment segment of the marketplace will exceed $12 billion alone by 2016, due largely to "the need for operators to deploy new base stations to provide good quality of experience over LTE networks."[73]

II. PETITIONERS HAVE FAILED TO MEET THEIR BURDEN OF PROOF TO JUSTIFY REIMPOSING REGULATION ON ENTERPRISE BROADBAND SERVICES

The forbearance grants that Petitioners ask the Commission to reverse have been in place for five years or more. Today, those grants are final and unreviewable. Of those that were timely appealed, all were upheld by the D.C. Circuit.[74] Although Petitioners suggest that the Commission can "revisit" forbearance grants, the deadline for filing a petition for reconsideration with the Commission has long since passed. And in any event, Section 10 does

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[70] Carol Wilson, *Level 3: Mobile Backhaul Brutally Competitive*, Light Reading (Oct. 7, 2011) (video of interview with Amanda Tierney, VP Wholesale Market Management, Level 3, *available at* http://www.lightreading.com/video.asp?doc_id=213138.

[71] *See U.S. Mobile Backhaul Demand Forecast to Grow More Than Nine Times in the Next Four Years* (Mar. 13, 2012), *available at* http://www.fiercemobilecontent.com/press-releases/us-mobile-backhaul-demand-forecast-grow-more-nine-times-next-four-years. The global demand for mobile backhaul equipment is projected to reach $10.4 billion in 2014 (compared to $7.2 billion in 2009). *See* Infonetics Research Press Release, *Shift Seen in Operator Strategy for Mobile Backhaul; Equipment Spending Up 21%* (Apr. 21, 2010), *available at* http://www.infonetics.com/pr/2010/Mobile-Backhaul-and-Microwave-Market-Highlights.asp.

[72] Frost and Sullivan, *U.S. Mobile Backhaul Services Market* at 16.

[73] Ian Mansfield, *Microwave Backhaul Equipment Market To Surpass US $12 Billion by 2016*, Cellular-News (May 25, 2011), *available at* http://www.cellular-news.com/story/49312.php.

[74] *See Ad Hoc Telecom. Users Comm. v. FCC*, 572 F.3d 903 (D.C. Cir. 2009); *Sprint Nextel Corp. v. FCC*, 508 F.3d 1129, 1132 (D.C. Cir. 2007).

not permit the Commission to use reconsideration to transform a grant into a denial once the statutory deadline for denying a forbearance petition has passed.

As parties seeking regulatory relief from the Commission, Petitioners have the burden of proving that regulations are necessary based on a record that reflects today's marketplace conditions. This follows from the basic rule of administrative law that the petitioner bears the burden of proof. Further, a carrier having obtained forbearance need not continually prove that it is *still* entitled to forbearance. Instead, to overturn a grant of forbearance, a petitioner must prove that at least one of the forbearance criteria is no longer met, that is, that regulation is necessary to ensure just and reasonable rates or to protect consumers, or is otherwise in the public interest. In other words, Petitioners must make the same kind of showing necessary to support a rulemaking. Petitioners do not acknowledge that they bear — much less attempt to meet — that burden.

Finally, the Commission should reject Petitioners' invitation to abandon the analytical framework it has used, with the D.C. Circuit's approval, to evaluate the competitiveness of the enterprise broadband marketplace for the last eight years. As even Petitioners concede,[75] this marketplace continues to evolve with the introduction of new technologies. As a result, the best approach is still to take a forward-looking view of this market and consider both actual and potential competition, rather than apply a static market power framework as Petitioners urge.

A. The Commission Cannot Reconsider the Grants of Forbearance

Regardless of what they call their filing, Petitioners are seeking reconsideration of the forbearance grants. The Petition reargues the merits of whether forbearance was appropriate based on the factual record that existed in proceedings that concluded in 2006, 2007, and 2008,

[75] Petition at 3.

and urges the Commission to reevaluate those stale records using a different analytical framework. Petitioners, for example, identify five purported "flaws" in the Commission's reasoning in the *Forbearance Orders*, including the Commission's reliance on what Petitioners characterize as "vague and unsupported predictive judgments,"[76] and complain that the carriers to which the Commission granted forbearance "offered virtually no factual support for their forbearance requests."[77] But Section 10 prohibits reconsideration now. Under Section 10, a petition is "deemed granted if the Commission does not deny the petition for failure to meet the requirements for forbearance . . . within" the statutory deadline.[78] Congress authorized the Commission to grant only one, 90-day extension to the "initial one-year period" within which the Commission must deny a forbearance petition to prevent it from being deemed granted.[79] Together, these provisions create a firm statutory deadline for denying a petition for forbearance: one year (or, at most, one year and ninety days) from when it was filed. Where, as here, forbearance petitions were granted during (or upon the expiration of) the statutory period, the Commission cannot afterwards reconsider the forbearance grants based on the records compiled during that period. Such a decision would run afoul of the statutory deadline for denials. Instead, to reverse a forbearance grant, the Commission must compile a new record and make a decision based on that new evidence.

The need to base a decision about rescinding a grant of forbearance on a newly compiled, current record is particularly evident here. It would be unreasonable for the Commission to make a decision today about the future of the enterprise broadband marketplace based on records

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[76] *Id*. at 26-27.

[77] *Id*. at 12.

[78] 47 U.S.C. § 160(c).

[79] *Id.*

that are five to seven years old. Today, the Commission has seven years of substantial, real-world evidence concerning the marketplace effects of forbearance at its disposal, which it did not have when it issued the *Forbearance Orders*. The Commission has "no license to ignore" these data, which "relate[] directly to the question at issue."[80]

Moreover, assuming that reconsideration of a forbearance grant after Section 10's statutory deadline were ever appropriate, Petitioners would *still* not be permitted to file a petition for reconsideration of the forbearance grants. Under the Communications Act and the Commission's regulations, petitions for reconsideration must be filed within 30 days.[81] The current petition is far too late.[82]

Petitioners' suggestion that the Commission can revisit the *Forbearance Orders* and the records compiled in 2006, 2007, or 2008 is flatly wrong.

B. Petitioners Have Not Satisfied Their Burden of Proof

Petitioners bear the burden of proof in this proceeding. To meet that burden, they must prove — by offering evidence and persuasive argument — that at least one of Section 10's criteria is affirmatively not satisfied. They must show that additional regulation is necessary to ensure just and reasonable rates or to protect consumers, or is otherwise in the public interest. Petitioners must show, basically, that there is a market failure such that market forces will not keep prices down and competition robust — precisely the same showing that is required when the Commission promulgates new regulations, whether in response to a petition or on its own motion.

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[80] *BellSouth Telecomms., Inc. v. FCC*, 469 F.3d 1052, 1060 (D.C. Cir. 2006).

[81] *See* 47 U.S.C. § 405; 47 C.F.R. § 1.106(f).

[82] *See, e.g., Reuters Ltd. v. FCC*, 781 F.2d 946 (D.C. Cir. 1986).

Ordinarily, the proponent of agency action has the burden of convincing the agency to act; the only exception is when the statute explicitly places the burden elsewhere.[83] This rule and corresponding exception are canonized in the Administrative Procedures Act.[84] The Commission has applied this basic rule of administrative law to forbearance petitions and decided that forbearance petitioners bear the burden of proof when seeking forbearance.[85] In so ruling, the Commission explained that forbearance petitioners are "proponent[s] of regulatory relief,"[86] and noted that the Commission "always" requires "the petitioner to produce sufficient evidence and analysis to warrant granting the relief sought," in accordance with the "historical[]" rule in "American jurisprudence" that the proponent has the burden of proof.[87] The same reasoning applies to Petitioners here. Petitioners are asking the Commission to act to provide them regulatory relief — namely, to re-impose regulation on their competitors, which, they believe, will benefit them in the marketplace — and, therefore, they have the burden of proof.

To meet their burden of proof, the Petitioners must identify a market failure. In seeking to undo a grant of forbearance, a petitioner's burden is the converse of the burden a forbearance

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[83] *See, e.g., Schaffer v. Weast*, 546 U.S. 49, 57-58 (2005) ("Absent some reason to believe that Congress intended otherwise, therefore, we will conclude that the burden of persuasion lies where it usually falls, upon the party seeking relief."); *Indus. Union Dept., AFL-CIO v. Am. Petroleum Inst*., 448 U.S. 607, 653 (1980) ("Ordinarily, it is the proponent of a rule or order who has the burden of proof in administrative proceedings.").

[84] *See* 5 U.S.C § 556(d) ("Except as otherwise provided by statute, the proponent of a rule or order has the burden of proof."); *Hazardous Waste Treatment Council v. EPA*, 886 F.2d 355, 366 (D.C. Cir. 1989).

[85] Report and Order, *Petition to Establish Procedural Requirements to Govern Proceedings for Forbearance Under Section 10 of the Communications Act of 1934, As Amended*, 24 FCC Rcd 9543, ¶ 20 & n.75 (2009) ("*Procedural Requirements for Forbearance Proceedings*") (citing *Schaffer*, 546 U.S. at 56).

[86] *Id*. ¶ 23.

[87] *Id*. ¶ 20; *see Qwest Corp. v. FCC*, 689 F.3d 1214, 1225 (10th Cir. 2012) (upholding this allocation of the burden of proof).

petitioner bears. It must prove to the Commission that at least one of Section 10's criteria currently is *not* satisfied: (1) regulation *is necessary* to ensure that rates and practices are just, reasonable, and not unreasonably discriminatory; (2) regulation *is necessary* to protect consumers; or (3) forbearance *is not consistent* with the public interest, meaning that forbearance has or will undermine competitive market conditions and reduce competition among providers of telecommunications services.[88] Petitioners must show, in other words, that market forces have been insufficient to discipline rates, protect consumers, and allow competition. Or, to reduce the point to the simplest terms: Petitioners must identify a market failure.

The situation where a market failure is resulting in unjust rates, harm to consumers, or a lack of competition, is precisely the situation in which the Commission is justified — either on its own motion or in response to a petition — in adopting new regulations pursuant to § 201(b).[89] The Commission has stated that it will adopt new regulations pursuant to § 201(b) when it finds "there is evidence of a market failure and a regulatory solution is available that is likely to improve the net welfare of the consuming public."[90] Otherwise, the Commission will "rel[y] on market forces, rather than regulation."[91] The regulations the Commission adopts pursuant to its

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[88] *See* 47 U.S.C. § 160.

[89] 47 U.S.C. § 201(b); *see generally National Cable & Telecomms. Ass'n v. Brand X Internet Servs.*, 545 U.S. 967, 980-81 (2005); *AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366, 378 (1999).

[90] Tentative Decision and Request for Further Comments, *Amendment of 47 CFR § 73.658(j)(1)(i) and (ii), the Syndication and Financial Interest Rules*, 94 FCC 2d 1019, ¶ 107 (1983).

[91] Memorandum Opinion and Order, *Orloff v. Vodafone Airtouch Licenses LLC, d/b/a Verizon Wireless*, 17 FCC Rcd 8987, ¶ 22 n.69 (2002), *aff'd*, *Orloff v. FCC*, 352 F.3d 415, 420 (D.C. Cir. 2003); *see also* Second Report and Order, *Implementation of Sections 3(n) and 332 of the Communications Act Regulatory Treatment of Mobile Services*, 9 FCC Rcd 1411, ¶ 173 (1994) ("[I]n a competitive market, market forces are generally sufficient to ensure the lawfulness of . . . terms and conditions of service by carriers who lack market power.").

§ 201(b) authority are, therefore, "created to substitute for, and compensate for the lack of, competition."[92]

The similarity between the standard for reversing a grant of forbearance and imposing regulations generally should be unsurprising: reversing a grant of forbearance imposes regulations, just as a rulemaking does. Regulation imposed for the first time is not materially different from regulation imposed for the second time. In either case, the Commission is regulating that which has — for years — been unregulated. For the same reasons, any Commission decision reversing a grant of forbearance would have to take the form of an order, and the Commission would have to conduct a full rulemaking before issuing that order. The Commission could not use a declaratory ruling to undo a grant of forbearance. Declaratory rulings are used to clarify an ambiguity in current law, not to change the current law, which is what Petitioners seek.

Here, the market is working, and the Petitioners have failed to carry their burden. Petitioners do not offer any persuasive evidence that the marketplace for non-TDM-based services has failed, is failing, or is in danger of failing. They do not offer evidence or argument alleging that Section 10's three criteria are not satisfied. The Commission can — and should — deny the petition on this basis alone.

Petitioners do not address "Actual Competition" until 40 pages into their petition. When they do, they offer only unsupported assertions and data that are years out of date. Some of these data even pre-date the *Forbearance Orders*. For example, Petitioners proclaim that "[e]very available source indicates that competitors have deployed fiber to only a small percentage of

[92] Notice of Proposed Rulemaking, *Policy & Rules Concerning Rates for Competitive Common Carrier Services & Facilities Authorizations Therefor*, 84 F.C.C.2d 445, ¶ 37 (1981).

commercial buildings across the country," and cite a Government Accountability Office study from *2006,* which in turn cited Department of Justice findings from *2005*.

Petitioners assert that the incumbent LECs' prices for high-capacity services exceed competitive levels.[93] Petitioners rely on an ex parte letter from tw telecom, which they claim establishes that "incumbent LECs' wholesale Ethernet prices generally exceed — and in some cases, vastly exceed — tw telecom's retail Ethernet prices, thereby placing tw telecom in a classic price squeeze."[94] But the letter to which Petitioners refer is three years old. Furthermore, tw telecom is just one competitor among many. The fact that tw telecom may have lower prices or costs than some incumbents does not indicate whether market forces are sufficient to maintain just, reasonable, and nondiscriminatory prices for customers as a whole.

Petitioners also make the bold claim that "incumbent LECs' [Ethernet] prices are often higher on a per megabit basis than even bonded DS-1 or DS-3 services," without offering supportive data.[95] Petitioners cite an ex parte letter from BT, but, again, this letter is not current: it is nearly three years old. Moreover, it contains no data that support Petitioners' bold claim.[96] In this letter, BT cited high Ethernet prices as a basis for its prediction that "Ethernet access services do not and are unlikely to constitute a significant portion of global corporations' access spend in the U.S. in the near future" — a prediction that has proven incorrect.

Perhaps the Petitioners chose to submit cherry-picked old data because the current facts do not support their story. Current data, as we discussed earlier in these comments, demonstrates

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[93] Petition at 57.

[94] *Id*.

[95] *Id*.

[96] *See* Letter from Sheba Chacko, BT Global Services, to Marlene Dortch, FCC, at 2, WC Docket No. 05-25 & RM-10593 (Feb. 24, 2010).

that the marketplace for enterprise broadband services is competitive and that it has only grown more competitive since the incumbent LECs received forbearance.

C. The Commission Should Retain Its Long-Standing Framework for Addressing Petitions for Forbearance Involving Broadband Services

In the *Forbearance Orders*, the Commission analyzed the "emerging and changing" market for broadband "from the perspective of larger trends in the marketplace."[97] The Commission rejected suggestions that it adopt granular market definitions, explaining that its approach was "consistent with traditional market power analysis" and recognizing that focusing on "specific geographic markets would force the Commission to premise findings on limited and static data that failed to account for all of the forces that influence future market development."[98] Consequently, the Commission took into account not only the "many significant providers of Frame Relay services, ATM services, and Ethernet-based services" but also the competitors that could "readily" enter this market in concluding that the marketplace for broadband was "highly competitive."[99]

The Commission formulated this forward-looking approach to broadband years earlier, when a number of petitioners asked the Commission to forbear from enforcing the unbundling requirements of § 271 with respect to broadband elements in their networks.[100] In that

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[97] *AT&T Forbearance Order* ¶ 20; *Embarq & Frontier Forbearance Order* ¶ 19; *Qwest Forbearance Order* ¶ 23.

[98] *AT&T Forbearance Order* ¶ 20; *see Embarq & Frontier Forbearance Order* ¶ 19 ("Consistent with our approach in the [*AT&T Forbearance Order*], we find it appropriate, contrary to several parties' arguments, to consider marketplace conditions for these services broadly."); *Qwest Forbearance Order* ¶ 23 ("We also continue to believe . . . that it is appropriate to view a broadband marketplace that is emerging and changing, such as we find true here, from the perspective of the larger trends that are shaping the marketplace.").

[99] *Qwest Forbearance Order* ¶ 26.

[100] Memorandum Opinion and Order, *In the Matters of Petition for Forbearance of the Verizon Tel. Companies Pursuant to 47 U.S.C. § 160(c) Sbc Communications Inc.'s Petition for Forbearance Under 47 U.S.C. § 160(c) Qwest Communications Int'l Inc. Petition for*

proceeding, the Commission found that "[t]he broadband market is still an emerging and changing market, where . . . the preconditions for monopoly are not present" and that "rational competitors' decisions concerning next-generation broadband technologies" are informed by both "actual and potential intermodal competition" in this market.[101] It "expect[ed] intermodal competition to become increasingly robust, including providers using platforms such as satellite, power line and fixed and mobile wireless in addition to the cable providers and BOCs."[102] Accordingly, the Commission "refused to take the static view suggested by some competitors of this dynamic broadband market" and look to the BOCs current market shares to assess the competitiveness of the market.[103] Instead, the Commission took into account broader trends in the broadband marketplace. It concluded that "forbearance from [§ 271's unbundling requirements] will provide an increased incentive for the BOCs to deploy broadband services and compete with cable providers, which will in turn increase competition and benefit consumers."[104] The Commission noted that its analysis was "informed by" the Section 706 of the Telecommunications Act, which "directs [the Commission] to use, among other authority, [its] forbearance authority under section 10(a) to encourage the deployment of advanced services."[105]

Forbearance Under 47 U.S.C. § 160(c) Bellsouth Telecommunications, Inc. Petition for Forbearance Under 47 U.S.C. § 160(c), 19 FCC Rcd 21496 (2004) ("*Section 271 Broadband Forbearance Order*").

[101] *Section 271 Broadband Forbearance Order* ¶ 21.

[102] *Id*. ¶ 29.

[103] *Id*. ¶ 29.

[104] *Id*. ¶ 31.

[105] *Id*. ¶ 20 (quoting Memorandum Opinion and Order and Notice of Proposed Rulemaking, *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, 13 FCC Rcd 24012, ¶ 77 (1998)).

The D.C. Circuit upheld the Commission's decision and, in particular, its analytical approach to the broadband market, in *EarthLink, Inc. v. FCC*.[106] The court recognized "the FCC's capacity . . . to adapt forbearance decisions to the circumstances" and concluded that the Commission had "reasonably tailored its analysis to the situation at hand."[107] It found that the Commission had "reasonably eschewed a more elaborate snapshot of the current market" in deciding whether to grant forbearance in light of its "view of the broadband market as still emerging and developing" and the language of Section 706, which "suggests a forward-looking approach."[108]

The Commission has recently reaffirmed that the high capacity market must be analyzed broadly in proposing "a one-time, multi-faceted market analysis of the special access market" that "will help the Commission determine whether any market participants have market power and, if so, where such market power exists."[109] The Commission stated that it will evaluate "actual and potential competition," which are "good predictors of competitive behavior,"[110] as part of this analysis and will "not . . . conduct a simple market share or market concentration analysis."[111] In addition, the Commission indicated that it will consider "actual and potential competition for services that are substitutes for special access (regardless of technology)."[112]

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[106] 462 F.3d 1 (D.C. Cir. 2006).

[107] *EarthLink*, 206 F.3d at 11; *see id*. at 8 ("[Section 10] imposes no particular mode of market analysis or level of geographic rigor.").

[108] *Id*. at 8-9.

[109] *Notice* ¶ 67.

[110] *Id*.; *see id*. ¶ 48 ("[W]e agree with commentators who argue that to understand the impact of competition in special access, it is important to grasp the effects of potential, as well as actual, competition.").

[111] *Id*. ¶ 67; *see id*. ¶ 16 (noting that "[e]vidence of competitive effects can inform market definition, just as market definition can be informative regarding competitive effects.").

[112] *Id*. ¶ 67.

Petitioners argue that the Commission should reverse its long-standing approach to evaluating the market for broadband services and, instead, "apply the traditional market power framework used in the *Qwest Phoenix Order*."[113] But, the *Qwest Phoenix Order* explicitly states that it does not apply to broadband services. In the *Qwest Phoenix Order* the Commission was considering a petition for forbearance from loop and transport unbundling obligations for TDM services, obligations which have not applied to broadband services for nearly a decade.[114] Indeed, in changing its approach to analyzing forbearance petitions with regard to these TDM services, the Commission recognized that "a different analysis may apply when the Commission addresses advanced services, like broadband services, instead of a petition for legacy services."[115] It explained:

> For advanced services, not only must we take into consideration the direction of section 706, but we must take into consideration that this newer market continues to evolve and develop in the absence of Title II regulation. In this petition for forbearance from currently applicable regulation, by contrast, we do not find any persuasive claim that the requested forbearance from unbundling legacy network elements would advance the goals of section 706.[116]

Petitioners' argument that the Commission should apply its traditional market power analysis to broadband services, therefore, is indistinguishable from the argument EarthLink raised, and the Commission and D.C. Circuit rejected, years ago. EarthLink, just as Petitioners do here, argued that the Commission was required to define geographic markets and conduct "a traditional market analysis" before it could make "informed and objective judgments about the

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[113] Petition at 25.

[114] *See Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, 18 FCC Rcd 16978 (2003), *aff'd in part, rev'd in part, and remanded in part, United States Telecom Ass'n v. FCC*, 359 F.3d 554 (D.C. Cir. 2004).

[115] Memorandum Opinion and Order, *Petition of Qwest Corporation for Forbearance Pursuant to 47 U.S.C. § 160(c) in the Phoenix, Arizona Metropolitan Statistical Area*, 25 FCC Rcd 8622, ¶ 39 (2010) ("*Qwest Phoenix Order*").

[116] *Id*. ¶ 39.

sufficiency of competition."[117] Petitioners make no attempt to undermine the continuing vitality of the Commission's decision or the D.C. Circuit's holding in *EarthLink* by showing that the broadband market has ceased to be dynamic. To the contrary, Petitioners concede that the broadband marketplace is still a nascent marketplace undergoing significant change, as "services, such as Ethernet, are replacing DSn services."[118]

The Commission has no reason to reverse course. The Commission changed its methodology for analyzing market power in the *Qwest Phoenix Order* because it found that predictions it made about the effects of forbearing from unbundling obligations on the basis of a duopoly in the *Qwest Omaha Forbearance Order* had not borne out.[119] Here, in contrast, because the Commission's predictions about the broadband market in the *Forbearance Orders* have proven correct, the Commission has no reason to suspect that its initial analysis was misguided. Instead, the Commission has every reason to be confident in the soundness of its long-standing approach to analyzing the broadband market.

[117] Brief for Petitioner at 15-16, *EarthLink, Inc. v. FCC*, 462 F.3d 1 (D.C. Cir. 2006).

[118] Petition at 3.

[119] *Qwest Phoenix Order* ¶¶ 33-37 ("Given the theoretical and empirical concerns with duopoly in some markets, and the experience in Omaha following the Commission's grant of forbearance, we find it appropriate to adopt a more comprehensive analytical framework for considering forbearance petitions like Qwest's.").

CONCLUSION

The Commission should deny the petition.

Respectfully submitted,

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Appendix A

Profiles of Selected Competitive Enterprise Broadband Providers

APPENDIX A

PROFILES OF SELECTED COMPETITIVE ENTERPRISE BROADBAND PROVIDERS

A. Cable Operators

1. Comcast Business Class

Comcast Business Class operates networks in 39 states and Washington, D.C., including 20 of the 25 largest MSAs in the U.S.[1] Comcast Business's network consists of 600,000 plant route miles, 147,000 fiber route miles, and 116,000 optical nodes.[2] Comcast states that "[w]ith over 147,000 national route miles of fiber, [its] network is the largest facilities-based last mile alternative to the phone company."[3] According to Comcast, Ethernet services are available throughout its entire cable footprint,[4] with "gigabytes of service for [a] pretty reasonable price."[5] Comcast states that its "advanced network delivers reliable and scalable services for businesses of any size."[6] This network enables businesses "to seamlessly link multiple locations together and exchange data at up to 1 gigabit per second."[7] Comcast offers a wide range of Ethernet services, including "customizable point-to-point configurations" with bandwidth scalable up to 1 Gbps[8] and Ethernet Virtual Private Line service for an "Ethernet Virtual Connection (EVC) between multiple customer locations,"[9] that is available with 10 Mbps, 100 Mbps, 1 Gbps or 10 Gbps Ethernet User-to-Network Interfaces (UNI) and in speed increments from 1 Mbps to 10 Gbps.[10]

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[1] Frost & Sullivan, *Cable MSO Ethernet Strategy: Moving Up-Market for New Opportunities*, BCS 6-3, at 13, Figure 1 (Mar. 2012) ("Frost & Sullivan, *Cable MSO Ethernet Strategy*").

[2] Comcast, *Comcast Business Class — The Comcast Network*, http://business.comcast.com/docs/general-docs/Network_Brochure.pdf?sfvrsn=0.

[3] *Id*.

[4] *See Comcast Corporation at Wells Fargo Technology Media & Telecom Conference — Final*, FD (Fair Disclosure) Wire, Transcript 110712a4939421.721 (Nov. 7, 2012) (statement by Comcast Vice Chairman & CFO Michael Angelakis).

[5] *Id*. (statement by Comcast Vice Chairman & CFO Michael Angelakis). *See also* Frost & Sullivan, *Cable MSO Ethernet Strategy* at 14 ("The company's focus is to expand availability to more and smaller metro areas, provide dense high-speed access by capitalizing on its existing fiber and HFC networks, and national reach through interconnecting its metro networks.").

[6] Comcast, *Comcast Business Class — The Comcast Network*, http://business.comcast.com/docs/general-docs/Network_Brochure.pdf?sfvrsn=0. *See also* Frost & Sullivan, *Cable MSO Ethernet Strategy* at 15 (Comcast "targets small and mid-market businesses, with up to 500 employees, which have multiple site connectivity, large data requirements and limited internal IT/telecom expertise; and selected large businesses needing remote connectivity within its footprint.").

[7] Comcast, *Comcast Business Class — Ethernet Network*, http://business.comcast.com/smb/services/ethernet/enterprise-network-solutions.

[8] Comcast, *Comcast Business Class — Ethernet Private Line*, http://business.comcast.com/smb/services/ethernet/private-line.

[9] Comcast, *Comcast Business Class — Enterprise Ethernet Virtual Private Line*, http://business.comcast.com/enterprise/services/data/ethernet-virtual-private-line.

[10] Comcast, *Comcast Business Class — Enterprise Ethernet Virtual Private Line Technical Description*, http://business.comcast.com/smb/services/ethernet/EPLtechspechs.

According to Comcast's Vice Chairman and CFO, the "existing addressable market for [its] business services group is probably around $20 billion to $25 billion and [Comcast is] in the $2.5 billion range, so somewhere around 10%."[11] Comcast's business services revenues increased more than 34 percent from 2011 to 2012.[12] In 2012, Comcast reported that it was spending approximately $700 million a year in capital spending for business services.[13] With respect to backhaul, Comcast has "increased the number of installed towers by about 79% since 2010."[14] Comcast has stated that it plans to increase its capital expenditures by approximately 10 percent in 2013, and the company plans to "invest more aggressively in the midmarket with Metro-E."[15]

2. Cox Business

Cox Business is the fifth largest provider of business Ethernet services in the United States.[16] Cox Business has deployed more than 13,000 route miles of fiber nationwide and reports more than 20,000 lit buildings.[17] Cox Business serves nearly 300,000 customers,[18] approximately 85 percent of which are businesses with 19 or fewer employees.[19] Cox states that its Metro Ethernet is available "at a large number of locations served by Cox's Fiber-To-The-Premise or Hybrid Fiber Coax (HFC) networks, both serviced by Cox's highly redundant and reliable metro network architecture."[20] Cox is "deploying a seamless Ethernet platform across

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[11] *Comcast Corporation at Wells Fargo Technology Media & Telecom Conference — Final*, FD (Fair Disclosure) Wire, Transcript 110712a4939421.721 (Nov. 7, 2012) (statement by Comcast Vice Chairman & CFO Michael Angelakis).

[12] *See* Comcast Corporation, *4th Quarter and Full-Year 2012 Results Presentation*, at 6 (Feb. 13, 2013), http://files.shareholder.com/downloads/CMCSA/2322601030x0x635082/5713f842-2ecc-4652-a4e1-b6e15e3ac506/Comcast4Q12_Earnings_Presentation.pdf.

[13] *Comcast Corporation at Sanford C. Bernstein & Co. Strategic Decisions Conference — Final*, FD (Fair Disclosure) Wire, Transcript 060112a4820634.734 (June 1, 2012) (statement by Comcast Chairman & CEO Brian Roberts)

[14] *Q1 2012 Comcast Corporation Earnings Conference Call — Final*, FD (Fair Disclosure) Wire, Transcript 050212a4767051.751 (May 2, 2012) (statement by Comcast Chairman & CEO Brian Roberts).

[15] *Q4 2012 Comcast Corporation Earnings Conference Call — Final*, FD (Fair Disclosure) Wire, Transcript 021313a4979938.738 (Feb. 13, 2013) (statement by Comcast CFO and Vice Chairman Michael J. Angelakis).

[16] Vertical Systems Group, *Year-End 2012 U.S. Business Ethernet LEADERBOARD* (Jan. 29, 2013), http://www.verticalsystems.com/prarticles/stat-flash-YE_2012_US_Leaderboard.html ("Vertical Systems Group, *2012 U.S. Business Ethernet LEADERBOARD*").

[17] *See* Frost & Sullivan, *Cable MSO Ethernet Strategy* at 13, Figure 1.

[18] Jeff Baumgartner, *Cox Business Plots Path to $2B in Revenues*, Light Reading Cable (Nov. 29, 2012), http://www.lightreading.com/document.asp?doc_id=227486&site=lr_cable&f_src=lrdailynewsletter (citing Cox Business Senior Vice President Phil Meeks).

[19] Kimberly Donoghue, *Five Questions with Philip Meeks*, Providence Business News (July 20, 2011), http://www.pbn.com/detail.html?sub_id=ba9f53b09b&print=1 (citing Cox Business Senior Vice President Phil Meeks).

[20] Cox Business, *Metro Ethernet Overview*, http://ww2.cox.com/business/rhodeisland/data/metro-ethernet.cox.

all of [its] markets as quickly as [it] can," and "providing Ethernet-based services over [its] HFC [network] . . . as well as fiber."[21]

According to Cox, its Metro Ethernet service allows businesses "to cost-effectively connect multiple locations together by combining the simplicity of Ethernet with [Cox's] reliable optical fiber network."[22] Cox claims that it has made "several innovations on the carrier side and the traditional commercial side," and notes that "enterprise as well as carrier customers are all moving away from the old world of ATM/FR types of services toward Ethernet platforms," "in order to get better throughput for fewer dollars."[23]

Cox also is a major provider of wireless backhaul, which it states has "been a huge part of [Cox Business's] carrier revenue growth."[24] According to a Cox Business executive, wireless carriers are spending capital dollars for mobile backhaul "to ensure they have the right capacity in place for the volumes they are receiving via data services," and "[w]hat all of the carriers are seeing is Cox filling in the pockets of their networks."[25]

Cox Business "generated more than $1 billion in revenue in 2010,"[26] was "on track to bring in $1.4 billion in revenues during 2012,"[27] and is projected to reach its $2 billion sales target by 2016.[28] Cox Business's Senior Vice President Philip Meeks noted that the company's

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[21] FierceTelecom, *Cox Business: Anticipating Carrier, Commercial Ethernet Growth* (Jan. 5, 2011), http://www.fiercetelecom.com/special-reports/phil-meeks-vice-president-cox-business-reaching-its-1-billion-sales-milesto/cox-bus-0 (statement by Cox Business Senior Vice President Phil Meeks).

[22] Cox Business, *Metro Ethernet Overview*, http://ww2.cox.com/business/rhodeisland/data/metro-ethernet.cox.

[23] FierceTelecom, *Cox Business: Anticipating Carrier, Commercial Ethernet Growth* (Jan. 5, 2011), http://www.fiercetelecom.com/special-reports/phil-meeks-vice-president-cox-business-reaching-its-1-billion-sales-milesto/cox-bus-0 (statement by Cox Business Senior Vice President Phil Meeks).

[24] *Id.* (statement by Cox Business Senior Vice President Phil Meeks). *See* Kimberly Donoghue, *Five Questions with Philip Meeks*, Providence Business News (July 20, 2011), http://www.pbn.com/detail.html?sub_id=ba9f53b09b&print=1 (statement by Cox Business Senior Vice President Phil Meeks: "What [Cox Business] do[es] by wireless backhaul is provide physical infrastructure — fiber pipes — that connect wireless towers together. That's a huge opportunity for [Cox Business].").

[25] FierceTelecom, *Cox Business: Anticipating Carrier, Commercial Ethernet Growth* (Jan. 5, 2011), http://www.fiercetelecom.com/special-reports/phil-meeks-vice-president-cox-business-reaching-its-1-billion-sales-milesto/cox-bus-0 (statement by Cox Business Senior Vice President Phil Meeks).

[26] Cox Enterprises Inc., *2011 Year in Review*, at 7, http://www.coxenterprises.com/media/65277/insidecox_2012_winter_yir.pdf.

[27] Jeff Baumgartner, *Cox Business Plots Path to $2B in Revenues*, Light Reading Cable (Nov. 29, 2012), http://www.lightreading.com/document.asp?doc_id=227486&site=lr_cable&f_src=lrdailynewsletter (citing Cox Business Senior Vice President Phil Meeks).

[28] Alex Sherman, *Cox Considers Buying Business Services To Step Up AT&T Challenge*, Bloomberg Businessweek (Nov. 29, 2012), http://www.businessweek.com/news/2012-11-29/cox-considers-buying-business-services-to-step-up-at-and-t-challenge (citing Cox Business Senior Vice President Phil Meeks).

"objective is to double [its] market share in 6 years," and that the wholesale business is "really growing significantly and one of the drivers of that is wireless backhaul."[29]

3. Time Warner Cable Business Class

Time Warner Cable is the eighth largest provider of business Ethernet services in the United States.[30] Time Warner Cable Business Class operates networks in 31 states, covering 42 MSAs.[31]

Time Warner Cable reports that it "now ha[s] 550,000 business services customer relationships," and that Metro Ethernet and direct Internet access products "generated more than a third of business services, high-speed data revenue in [the third quarter of 2012]."[32] In 2012, Time Warner Cable "nearly doubled the number of commercial buildings connected with fiber."[33]

Time Warner Cable offers a variety of Ethernet solutions, including Ethernet Private Line service that "connects two locations via a secure point-to-point connection with scalable bandwidth speeds ranging from sub-T1 to 10 Gbps;"[34] point-to-multipoint connection through Ethernet Virtual Private Line service, with bandwidth up to 10 Gbps;[35] and multipoint-to-multipoint Ethernet Local Area Network service that "enables any-to-any communication between all customer locations associated with the multipoint-to-multipoint Ethernet connection," with scalable bandwidth options up to 10 Gbps.[36]

Time Warner Cable reports that "[c]ell tower backhaul continues to grow," having added more than 450 towers to its network in the third quarter of 2012.[37] Time Warner Cable is

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[29] Kimberly Donoghue, *Five Questions with Philip Meeks*, Providence Business News (July 20, 2011), http://www.pbn.com/detail.html?sub_id=ba9f53b09b&print=1 (statement by Cox Business Senior Vice President Phil Meeks).

[30] Vertical Systems Group, *2012 U.S. Business Ethernet LEADERBOARD*.

[31] Frost & Sullivan, *Cable MSO Ethernet Strategy* at 13, Figure 1.

[32] *Q3 2012 Time Warner Cable Inc. Earnings Conference Call — Final*, FD (Fair Disclosure) Wire, Transcript 110512a4908223.723 (Nov. 5, 2012) (statement by Time Warner Cable Inc. President & COO Rob Marcus).

[33] *Q4 2012 Time Warner Cable Inc. Earnings Conference Call — Final*, FD (Fair Disclosure) Wire, Transcript 013113a4980880.780 (Jan. 31, 2013) (statement by Time Warner Cable Inc. President and COO Rob Marcus).

[34] Time Warner Cable, *Business Class EPL*, https://www.twcbc.com/NYC/Products/ProductDetails/epl.ashx.

[35] Time Warner Cable, *Business Class Ethernet Virtual Private Line*, https://www.twcbc.com/NYC/Products/ProductDetails/evpl.ashx.

[36] Time Warner Cable, *Business Class ELAN*, https://www.twcbc.com/NYC/Products/ProductDetails/elan.ashx.

[37] *Q3 2012 Time Warner Cable Inc. Earnings Conference Call — Final*, FD (Fair Disclosure) Wire, Transcript 110512a4908223.723 (Nov. 5, 2012) (statement by Time Warner Cable Inc. President & COO Rob Marcus).

"generating revenue for more than 9000 cellular radios" and the company has "an extremely healthy backlog of additional towers under contract."[38]

Time Warner Cable reported that in the fourth quarter of 2012, "business services revenue grew 25.9%."[39] Business services revenue totaled $1.9 billion in 2012.[40] "Business services revenue growth for the fourth quarter and full year of 2012 was primarily due to increases in high-speed data and voice subscribers and growth in Metro Ethernet revenue."[41]

4. Charter Business

Charter operates networks in 23 states, covering 28 MSAs.[42] Charter has deployed more than 55,000 route miles of fiber nationwide,[43] which connect to more than 5,600 buildings, and the company reports an additional "8,000 buildings located within 1,000 feet of the fiber network."[44] Charter states that it "ha[s] an extremely dense network in [its] regions, and [it] continue[s] to invest in extending [its] fiber network to multitenant buildings," "enabling Charter to get closer and closer to more buildings and locations that might be attractive to carrier customers.'"[45] As of the end of 2012, Charter Business "served approximately 467,000 commercial primary service units, primarily small- and medium-sized commercial customers."[46] In February 2013, Charter Communications entered into an agreement to acquire the Optimum West systems in Colorado, Montana, Wyoming, and Utah from Cablevision; the transaction is expected to close in the third quarter of 2013.[47]

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[38] *Q3 2012 Time Warner Cable Inc. Earnings Conference Call — Final*, FD (Fair Disclosure) Wire, Transcript 110512a4908223.723 (Nov. 5, 2012) (statement by Time Warner Cable Inc. President & COO Rob Marcus).

[39] Time Warner Cable Inc. Press Release, *Time Warner Cable Reports 2012 Fourth-Quarter and Full-Year Results* (Jan. 31, 2013), http://ir.timewarnercable.com/investor-relations/investor-news/financial-release-details/2013/Time-Warner-Cable-Reports-2012-Fourth-Quarter-and-Full-Year-Results1133316/default.aspx.

[40] Time Warner Cable Inc., Form 10-K, at 34-35 (SEC filed Feb. 15, 2013), http://www.sec.gov/Archives/edgar/data/1377013/000119312513062081/d483194d10k.htm.

[41] Time Warner Cable Inc. Press Release, *Time Warner Cable Reports 2012 Fourth-Quarter and Full-Year Results* (Jan. 31, 2013), http://ir.timewarnercable.com/investor-relations/investor-news/financial-release-details/2013/Time-Warner-Cable-Reports-2012-Fourth-Quarter-and-Full-Year-Results1133316/default.aspx.

[42] Frost & Sullivan, *Cable MSO Ethernet Strategy* at 13, Figure 1.

[43] *Id.*

[44] Charter Business, *Carrier Solutions Connection* (Mar. 2012), http://www.charterbusiness.com/network-partner-connection/2012/march/default.aspx.

[45] Charter Business, *Carrier Solutions Connection* (May 2010), http://www.charterbusiness.com/network-partner-connection/2010/may/default.aspx (statement by Charter's carrier wholesale group sales manager Kelly Splitt).

[46] Charter Communications Inc., Form 10-K, at 1 (SEC filed Feb. 22, 2013), http://www.sec.gov/Archives/edgar/data/1091667/000109166713000020/chtr123112-10k.htm.

[47] *Id.* at 2.

Charter Business offers Metro Ethernet service "that connects two or more locations for commercial customers with geographically dispersed locations with speeds up to 10 Gbps."[48] It also "offers large businesses (200+ employees) with multiple sites more specialized solutions such as custom fiber networks, Metro and long haul Ethernet."[49] Charter Ethernet services can be configured as point-to-point Ethernet Private Line, point-to-multipoint Ethernet Virtual Private Line, or multipoint-to-multipoint Ethernet LAN service, "or a combination of all three, transparently connect[ing] multiple business locations (LAN and WAN) requiring privacy in connectivity."[50]

Charter offers Ethernet services "to wireless and wireline carriers, Internet Service Providers ('ISPs') and other competitive carriers on a wholesale basis."[51] Charter's "cell tower pipeline remains very strong," with "2,600 cell towers either in service or under contract."[52] Charter is "very well-positioned with our network to take advantage" of wireless carriers' push "to drive their 4G networks" into Tier 2 and Tier 3 markets.[53] Charter states that its carrier wholesale business is experiencing "demand [] coming from a range of providers," with larger carriers also looking to Charter for fiber access.[54]

Charter reported that its "[c]ommercial revenues grew 20.4% in the fourth quarter [of 2012]," "marking the seventh consecutive quarter of growth in excess of 20%. Full year commercial revenues increased 20.7% on a *pro forma* basis and 21.0% on an actual basis."[55] Charter increased its fourth quarter 2012 capital expenditure by $122 million more than the fourth quarter of 2011.[56]

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[48] *Id.* at 6.

[49] Charter Communications Inc., Form 10-K, at 6 (SEC filed Feb. 27, 2012), http://www.sec.gov/Archives/edgar/data/1091667/000109166712000026/0001091667-12-000026-index.htm.

[50] Charter Business, *Charter Business Fact Sheet*, at 1, http://www.charterbusiness.com/resources/file/Charter_Business_Fiber_Internet.pdf.

[51] Charter Communications Inc., Form 10-K, at 6 (SEC filed Feb. 22, 2013), http://www.sec.gov/Archives/edgar/data/1091667/000109166713000020/chtr123112-10k.htm.

[52] *Q1 2012 Charter Earnings Conference Call - Final*, FD (Fair Disclosure) Wire, Transcript 050812a4780901.701 (May 8, 2012) (statement by Charter EVP of Technology and President of Commercial Services Don Detampel).

[53] *Id.* (statement by Charter EVP of Technology and President of Commercial Services Don Detampel).

[54] Charter Business, *Carrier Solutions Connection* (May 2010), http://www.charterbusiness.com/network-partner-connection/2010/may/default.aspx (statement by Charter's carrier wholesale group sales manager Kelly Splitt) ("Demand is robust, and carriers — especially larger carriers — are increasingly recognizing the fact that right now, the Commercial services divisions of the cable companies are becoming fairly good competitors in their regions to the incumbent ILECs and the CLECs in terms of selling network infrastructure. . . . So it's a big opportunity.").

[55] Charter Communications Inc. Press Release, *Charter Announces Fourth Quarter and Full Year 2012 Results* (Feb. 22, 2013), http://phx.corporate-ir.net/phoenix.zhtml?c=112298&p=irol-newsArticle&ID=1787974&highlight=.

[56] *Q4 2012 Charter Earnings Conference Call — Final*, FD (Fair Disclosure) Wire, Transcript 022213a4979202.702 (Feb. 22, 2013) (statement by Charter Communications Inc. EVP and CEO Chris Winfrey).

5. Lightpath

Cablevision's Lightpath unit (formerly known as Optimum Lightpath) has deployed "an advanced fiber optic network extending more than 5,200 route miles, which includes approximately 274,000 miles of fiber, throughout the New York metropolitan area," and more than 5,800 buildings on-net.[57] Cablevision states that it "has offered advanced Metro Ethernet services to businesses throughout the [New York/New Jersey/Connecticut] tri-state area" since 2005.[58] It provides similar products in service territories in Montana, Wyoming, Colorado, and Utah that Cablevision acquired in 2010 from Bresnan Cable, although Cablevision has entered into an agreement to sell these systems to Charter Communications.[59]

Cablevision offers a wide variety of Ethernet services,[60] and reports that "[t]he Ethernet side of the business is expanding nicely."[61] "The increase in Lightpath net revenues is primarily attributable to growth in Ethernet data services, partially offset by reduced traditional data services."[62]

6. Bright House Networks

Bright House Networks, which calls itself a "fiber leader,"[63] offers Metro Ethernet service that allows customers to "connect multiple locations with the flexibility and reach of Metro Ethernet and the security and reliability of [its] fiber backbone," so customers "can

[57] Cablevision Systems Corp., Form 10-K, at 2 (SEC filed Feb. 28, 2013), http://www.sec.gov/Archives/edgar/data/784681/000114036113009832/form10k.htm.

[58] Lightpath, *Metro Ethernet*, https://golightpath.com/metro-ethernet.

[59] *See* Cablevision Systems Corp., Form 10-K, at 1, 9 (SEC filed Feb. 28, 2013), http://www.sec.gov/Archives/edgar/data/784681/000114036113009832/form10k.htm.

[60] Its service offering includes Lightpath E-Line — "a Layer 2, dedicated point-to-point service, designed for organizations who have single, or multiple applications that do not require a pre-set amount of bandwidth," Lightpath V-Line — "a Layer 2 point-to-point service, utilizing a single Ethernet Virtual Connection (EVC) to transmit information between locations," and Lightpath Virtual Private Ring Service — "a fully resilient, dedicated access ring that interconnects a minimum of three customer locations." Lightpath, *Lightpath E-Line*, https://golightpath.com/e-line; Lightpath, *V-Line*, https://golightpath.com/v-line; Lightpath, *Virtual Private Ring Service*, https://golightpath.com/vprs. It also offers Point-to-Point Optical Transport Service designed to connect customer locations with bandwidth up to 10 Gbps using Ethernet, fibre channel, or OC-48/OC-192 protocols and Private Fiber Service, which is "Ethernet service over dedicated Private Fiber delivered over optical waves," with up to 390 Gb throughput, designed for "transferring immense amounts of data." Lightpath, *Point to Point OTS*, https://golightpath.com/ots; Lightpath, *Private Fiber Service*, https://golightpath.com/ots.

[61] *Q2 2012 Cablevision Systems Corp. Earnings Conference Call — Final*, FD (Fair Disclosure) Wire, Transcript 080712a4859835.735 (Aug. 7, 2012) (statement by Cablevision EVP & CFO Gregg Seibert).

[62] Cablevision Systems Corp., Form 10-K, at 5 (SEC filed Feb. 28, 2013), http://www.sec.gov/Archives/edgar/data/784681/000114036113009832/form10k.htm.

[63] Bright House Networks, *Business Solutions - Dedicated Internet Access*, http://business.brighthouse.com/products-and-services/data-and-internet/dedicated-internet-access.html.

securely expand the reach of [their] network without the traditional cost and complexity of the dated WAN technologies."[64]

Bright House Networks also offers a wireless backhaul solution that "provides fiber-based Ethernet services connecting cell sites to the Wireless Carriers' switch for maximum coverage, [and] gives carriers the ability to efficiently scale capacity from five megabits per second (Mbps) to as much as one gigabit per second (Gbps) per site as backhaul needs grow over time."[65] In February 2011, Bright House Networks signed an agreement "to provide Ethernet-based backhaul services for MetroPCS Communications, Inc.'s networks in Orlando, Fla. and Tampa, Fla."[66]

7. Sidera Networks (formerly RCN Metro Optical Networks)

Sidera Networks was launched in September 2010 as the new name for RCN Metro Optical Networks,[67] following the August 2010 acquisition of RCN Corporation by ABRY Partners.[68] As of 2010, Sidera Networks' fiber network was comprised of "approximately 10,000 miles of fiber cable routes, offering approximately 335,000 fiber miles of network capacity," and the company delivered fiber-based communications services to "approximately 1,500 on-net locations, including connections to more than 144 ILEC central offices and 24 co-location facilities."[69] Sidera's customers include "large corporations, financial, healthcare and

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[64] Bright House Networks, *Business Solutions — Metro Ethernet*, http://business.brighthouse.com/products-and-services/data-and-internet/metro-ethernet.html.

[65] Bright House Networks Press Release, *Bright House Networks Supports MetroPCS Backhaul Network Evolution to Ethernet* (Feb. 28, 2011), http://brighthouse.com/tampa-bay/about/8331.htm.

[66] *Id.*

[67] Sidera Networks Press Release, *RCN Metro Optical Networks Re-Launches as Sidera Networks* (Sept. 9, 2010), http://www.sidera.net/news/press-releases/rcn-metro-optical-networks-re-launches-as-sidera-networks/.

[68] ABRY Partners Press Release, *ABRY Partners Completes Acquisition of RCN Corporation* (Aug. 26, 2010), http://www.abry.com/home/news/10-08-26/ABRY_Partners_Completes_Acquisition_of_RCN_Corporation.aspx. The RCN Metro Optical Networks business was separated from RCN's residential and small business segment, RCN Business Services, which serves small and medium-sized businesses, primarily in Washington, D.C., Philadelphia, the Lehigh Valley of Pennsylvania, New York City, Boston, and Chicago. RCN Business's Ethernet solution offers speeds "ranging from 3 Mbps to an amazing 1Gig (1000 Mbps)." RCN News Release, *RCN Cable Service Looking To Fill Call Center Jobs in the Lehigh Valley* (Sept. 22, 2011), http://www.rcn.com/about-rcn/newsroom/rcn-looking-to-fill-call-center-jobs; RCN Business, *Ethernet/Data T1*, http://www.rcnbusiness.com/products-and-solutions/data/ethernet-and-t1.

[69] RCN Corporation, Form 10-K, at 9 (SEC filed Mar. 9, 2010), http://www.sec.gov/Archives/edgar/data/1041858/000095012310022641/c97394e10vk.htm. Sidera Networks recently began construction a fiber-optic network to interconnect major cities in Virginia. This network is expected to be completed by the end of 2013, and "will add over 1,000 route miles to Sidera's already expansive East Coast network footprint," and "will extend Sidera's fiber network from its southernmost point today in Chantilly, VA to major cities including Richmond, Newport News, Roanoke and points in between." Sidera Networks Press Release, *Sidera Networks Begins Construction on Statewide Virginia Network* (Oct. 8, 2012), http://www.sidera.net/news/press-releases/sidera-networks-begins-construction-on-statewide-virginia-network/.

educational institutions, and government agencies seeking high-bandwidth data transport services," as well as other carriers, including wireless providers.[70]

Sidera's business Ethernet solutions include Ethernet Private Line (EPL), Ethernet Virtual Private Line (EVPL), Ethernet Transparent LAN (E-LAN), and E-Tree.[71]

In December 2012, Sidera Networks announced an agreement to be acquired by Berkshire Partners and merged with Lightower Fiber Networks as part of a series of transactions valued at more than $2 billion. These transactions "will enhance the ability of the Licensees to compete effectively in the medium and large enterprise, carrier and data center markets."[72] "Following the merger, the combined company will operate a high-performance, fiber-based network throughout the Northeast, Mid-Atlantic and Midwest, with connections to critical landing sites and exchanges internationally. The combined network will offer customers over 20,000 route miles and provide access to more than 6,600 on-net locations, including commercial buildings, data centers, financial exchanges, content hubs and other critical interconnection facilities." [73]

8. Suddenlink

Suddenlink, the seventh-largest MSO in the United States, has deployed "a network footprint of over 8,000 miles of optical fiber — with last-mile connectivity,"[74] and serves approximately 51,900 commercial high-speed data customers as of the end of 2012.[75] Suddenlink provides "a range of advanced services for the commercial market," such as "high capacity data services, including wide area networking and dedicated data access, enterprise class telephone service, including Primary Rate Interface ('PRI') and Session Initiated Protocol ('SIP') applications, and advanced services, including wireless mesh networks."[76] "In addition to serving small and medium sized commercial/Enterprise customers, [Suddenlink] sell[s]

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[70] RCN Corporation, Form 10-K, at 8 (SEC filed Mar. 9, 2010), http://www.sec.gov/Archives/edgar/data/1041858/000095012310022641/c97394e10vk.htm.

[71] Sidera Networks, *Ethernet - Benefits*, http://www.sidera.net/network-services/carrier-ethernet-services/.

[72] Consolidated Application for Consent to Transfer of Control at 4, *Light Tower Holdings LLC, Transferor, and LTS Buyer LLC, Transferee, Consolidated Application for Consent to Transfer Control of Subsidiaries of Light Tower Holdings LLC Possessing Blanket Domestic Section 214 Authority*, WC Docket No. 13-7 (FCC filed Jan. 8, 2013); *see also* Consolidated Application for Consent to Transfer of Control at 4, *Yankee Metro Partners, LLC, Transferor, and LTS Buyer LLC, Transferee, Consolidated Application for Consent to Transfer Control of Subsidiaries of Yankee Metro Partners, LLC, Possessing Blanket Domestic Section 214 Authority*, WC Docket No. 13-8 (FCC filed Jan. 8, 2013).

[73] Sidera Networks Press Release, *Lightower Fiber Networks To Merge with Sidera Networks* (Dec. 27, 2012), http://www.sidera.net/news/press-releases/lightower-fiber-networks-to-merge-with-sidera-networks/.

[74] Suddenlink Business, *About Suddenlink*, https://www.suddenlinkbusiness.com/aboutus/Pages/AboutUs.aspx.

[75] Cequel Communications Holdings I LLC, *2012 Annual Report*, at 40, http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9NDk2NzcxfENoaWxkSUQ9NTM1NzI3fFR5cGU9MQ==&t=1.

[76] *Id.* at 12.

wholesale high capacity circuits to national and regional carriers to support cell tower backhaul, last mile Ethernet, and regional transport."[77]

B. Petitioners

1. tw telecom

tw telecom is the third largest provider of business Ethernet services in the United States,[78] and claims to be the "[l]argest competitive provider of fiber based solutions in the U.S.," with "Ethernet ubiquity across 75 markets."[79] tw telecom "serve[s] 75 metropolitan markets with [its] extensive fiber facilities that are connected by [its] regional fiber facilities and national IP backbone."[80] As of the end of 2012, tw telecom's fiber network "spanned approximately 29,000 route miles (including approximately 22,000 metropolitan route miles), connecting to 17,948 buildings served directly by [tw telecom's] fiber facilities."[81] The company "continue[s] to extend [its] fiber footprint within [] existing markets by connecting [its] network into additional locations and to expand [its] data, voice and IP networking capabilities between [its] markets, supporting secure end-to-end business Ethernet, IP VPN and converged solutions for customers."[82]

tw telecom states that it has "delivered Ethernet nationally to enterprises for more than a decade," that it is "consistently one of the three leading providers of Business Ethernet across the country," and that its "continuous innovation strategy around Business Ethernet continues to differentiate [tw telecom] in the market with [its] customers."[83] Frost & Sullivan awarded tw telecom its 2011 Growth Leadership Award for Retail Carrier Ethernet Services,[84] and the Metro Ethernet Forum (MEF) presented tw telecom with the 2012 North America Carrier Ethernet Award for Best Ethernet Business Application.[85] tw telecom's Chairman, CEO, and President

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[77] Cequel Communications Holdings I LLC, *2012 Annual Report*, at 12, http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9NDk2NzcxfENoaWxkSUQ9NTM1NzI3fFR5cGU9MQ==&t=1.

[78] Vertical Systems Group, *2012 U.S. Business Ethernet LEADERBOARD*.

[79] tw telecom, *Wholesale Ethernet, Wholesale IP, Wholesale Transport Services*, http://www.twtelecom.com/telecom-solutions/wholesale-ethernet.

[80] tw telecom inc., Form 10-K, at 4 (SEC filed Feb. 15, 2013), http://www.sec.gov/Archives/edgar/data/1057758/000105775813000008/twtc201210-k.htm.

[81] *Id.*

[82] *Id.*

[83] tw telecom Press Release, *tw telecom Named 2012 Top Public Company by Light Reading* (Nov. 8, 2012), http://newsroom.twtelecom.com/2012-11-08-tw-telecom-Named-2012-Top-Public-Company-by-Light-Reading (statement by tw telecom Senior Vice President of Business Development and Strategy Mike Rouleau).

[84] *See* tw telecom Press Release, *tw telecom Receives Prestigious Frost & Sullivan Growth Leadership Award for Retail Carrier Ethernet Services* (Sept. 15, 2011), http://newsroom.twtelecom.com/index.php?s=24615&item=61498.

[85] tw telecom Press Release, *tw telecom Wins 2012 North America MEF Carrier Ethernet Award for Best Enterprise Application* (Nov. 8, 2012), http://newsroom.twtelecom.com/2012-11-08-tw-telecom-Wins-2012-North-America-MEF-Carrier-Ethernet-Award-for-Best-Enterprise-Application.

Larissa Herda explained that tw telecom is "selling Ethernet services to telecommunications carriers in general," which is "a relatively new phenomenon," and that for some wireless carriers, it is "a preferred provider for these Ethernet networks."[86] tw telecom announced that in the fourth quarter of 2012, tw telecom "delivered 7.5% year-over-year revenue growth and 2.4% sequentially, which was [its] 33rd consecutive quarter top line growth with data and internet now representing 52% of [its] total revenue. For the quarter, data and internet revenue grew 15.2% year-over-year and 4.6% sequentially."[87]

2. EarthLink

EarthLink has become a major supplier in the marketplace for enterprise broadband services as a result of acquisitions of ITC^DeltaCom, Inc. and One Communications, in 2010 and 2011, respectively. EarthLink now "operates an extensive network including approximately 28,800 route miles of fiber, 90 metro fiber rings and four enterprise-class data centers that provide IP coverage across more than 90 percent of the United States."[88] EarthLink's metro fiber spans approximately 8,000 route miles.[89] EarthLink now touts the fact that it has "one of the largest fiber networks in the country,"[90] and is continuing to expand its network within metropolitan areas as well as to new cities.[91] In November 2012, EarthLink announced the completion of its Eastern Tennessee Middle Mile Fiber Broadband Project, including a fiber-optic broadband network of more than 500 miles connecting previously underserved

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[86] *Q1 2011 tw telecom inc Earnings Conference Call — Final*, FD (Fair Disclosure) Wire, Transcript 051111a3993007.707 (May 11, 2011) (statement by tw telecom Chairman, CEO and President Larissa Herda); *see also Q1 2011 tw telecom Inc Earnings Conference Call — Final*, FD (Fair Disclosure) Wire, Transcript 051111a3993007.707 (May 11, 2011) (tw telecom Chairman, CEO and President Larissa Herda: "[W]e will expect to see continued progress with those types of services.").

[87] *Q4 2012 tw telecom inc Earnings Conference Call — Final*, FD (Fair Disclosure) Wire, Transcript 021213a4998130.730 (Feb. 12, 2013) (statement by tw telecom CFO and EVP Mark A. Peters).

[88] EarthLink Inc., Form 10-K, at 66 (SEC filed Feb. 20, 2013), http://www.sec.gov/Archives/edgar/data/1102541/000110254113000007/elnk-20121231x10k.htm.

[89] *EarthLink Inc at Stephens Fall Investment Conference — Final*, FD (Fair Disclosure) Wire, Transcript 111511a4240966.766 (Nov. 15, 2011) (statement by EarthLink Chairman & CEO Rolla Huff).

[90] *Q2 2011 EarthLink Inc. Earnings Conference Call — Final*, FD (Fair Disclosure) Wire, Transcript 072811a4153884.784 (July 28, 2011) (Comments by EarthLink Chairman and CEO Rolla Huff).

[91] In October 2012, EarthLink announced it will deploy a metro fiber ring in Memphis. EarthLink Press Release, *EarthLink Announces New Chicago to Memphis Long Haul Fiber Route* (Oct. 9, 2012), http://www.earthlink.net/about/press/pressrelease.faces?id=927("The Memphis metro fiber ring is a Wave/SONET-enabled OC-192 ring on the 10 Gigabit backbone designed to provide EarthLink with greater reach into the Memphis market and access to metro and cellular carriers in the city."); *Q3 2012 EarthLink Inc Earnings Conference Call — Final*, FD (Fair Disclosure) Wire, Transcript 103012a4922685.785 (Oct. 30, 2012) (statement by EarthLink Chairman & CEO Rolla Huff) (EarthLink is "increasing the capacity on [its] nationwide IP network and will add next-generation optical transport capabilities from Miami to Ashburn, Virginia, as well as major markets in the Southwest including Austin, Dallas, San Antonio, Houston and Oklahoma City. This expansion will allow EarthLink to extend [its] wholesale offering by offering new native 100 gig transport services on select key routes on [its] diverse fiber footprint.'"). *See also* EarthLink Inc., Form 10-K, at 4 (SEC filed Feb. 20, 2013), http://www.sec.gov/Archives/edgar/data/1102541/000110254113000007/elnk-20121231x10k.htm ("We are currently extending our core fiber IP network by adding 606 route miles of fiber to our optical transport capabilities.").

communities across the eastern part of the state.[92] EarthLink serves approximately 150,000 business customers.[93] EarthLink's "retail customers range from large enterprises with many locations, to small and medium-sized multi-site businesses, to business customers with one site. [Its] wholesale customers consist primarily of telecommunications carriers and network resellers."[94]

3. Sprint

Sprint is a major provider of Ethernet, wireless backhaul, and other enterprise broadband service, which it states it provides to "other communications companies and targeted business . . . subscribers," including "[its] Wireless segment and . . . to cable MSOs."[95] Sprint currently offers Ethernet access in 65 U.S. markets,[96] and is "aggressively expanding [its] Ethernet footprint."[97] In June 2012, Sprint announced that it is "[b]uilding upon the continued strong demand from businesses for Ethernet access," to "extend the service to 143 markets domestically . . . by the end of 2012; this includes building out existing markets and expanding into new markets."[98] Sprint "offer[s] a wide variety of solutions, from a fractional T1 to 10 Gig access, flat rate or usage-based billing arrangements, and a variety of access options, including Sprint provided access or customer provided access."[99]

4. BT Americas

BT Americas has been rapidly expanding its enterprise broadband service offerings in the United States and states that it "owns and operates its own network infrastructure in North America."[100] According to BT, "[t]his expanded footprint enables [it] to reach over 80% of key customer sites, as well as extending coverage beyond the US with MPLS points of presence in

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[92] *See* EarthLink Press Release, *EarthLink Completes Final Phase of Eastern Tennessee Broadband Project* (Nov. 13, 2012), http://www.earthlink.net/about/press/pressrelease.faces?id=935 (Phase One included a 343-mile overbuild from Nashville to Knoxville, and a new route from Knoxville to Chattanooga. Phase Two included a route from Knoxville to Bristol. Phase Three included interconnection points in Cookeville, Oak Ridge, Cleveland, Sweetwater, and Morristown).

[93] *EarthLink Inc at Stephens Fall Investment Conference — Final*, FD (Fair Disclosure) Wire, Transcript 111511a4240966.766 (Nov. 15, 2011) (statement by EarthLink Chairman & CEO Rolla Huff).

[94] EarthLink Inc., Form 10-K, at 3 (SEC filed Feb. 20, 2013), http://www.sec.gov/Archives/edgar/data/1102541/000110254113000007/elnk-20121231x10k.htm.

[95] Sprint Nextel Corp., Form 10-K, at 5 (SEC filed Feb. 28, 2013), http://www.sec.gov/Archives/edgar/data/101830/000010183013000006/sprint201210-k.htm.

[96] Josh Long, *Sprint To Double U.S. Ethernet Coverage*, Channel Partners (June 19, 2012), http://www.channelpartnersonline.com/news/2012/06/sprint-to-double-u-s-ethernet-coverage.aspx.

[97] Sprint Nextel, *Global MPLS*, http://wholesale.sprint.com/solutions/wholesale-products/global-mpls.

[98] Sprint News Release, *Sprint To Expand Ethernet Access Nationwide To Reduce Complexity and Costs for Businesses* (June 19, 2012), http://newsroom.sprint.com/article_display.cfm?article_id=2314.

[99] Sprint Nextel, *Dedicated Internet Access*, http://wholesale.sprint.com/solutions/wholesale-products/dedicated-internet-access.

[100] BT United States, *Leading in Networked IT Services, Consultancy, Outsourcing*, http://www.globalservices.bt.com/us/en/location/united_states.

Toronto and Mexico City."[101] BT reports that it has experienced "50 percent revenue growth in the Americas for the past five years in a highly competitive market."[102] BT offers customers "a new E-LAN service, dramatically increasing flexibility for organizations with ambitions to use Ethernet 'any to any' connectivity between sites."[103]

5. MegaPath

MegaPath, which formed through the combination of Covad Communications and Speakeasy, states that it is "one of the largest facilities-based providers of managed services in the United States providing voice, data, and security services to enterprise and SMB customers."[104] MegaPath's network reaches central offices "throughout all 50 states," including "4,200+ COs with [an] extended reach to 25,000."[105] MegaPath offers "[m]etro capacity up to OC 192."[106] MegaPath's network reaches over 235 metro markets throughout the United States, and offers "Internet connectivity via DSL, T1, Bonded T1, high-speed Ethernet, and cable with dedicated circuits providing a best-fit solution for business customers."[107]

6. Cbeyond

Cbeyond provides "Metro Ethernet coverage in over 150,000 buildings in [its] 14 markets where [it] can provide 10 megs or higher of symmetric bandwidth at market rates,"[108] and reports that "[i]n 2013, [it] will continue to proactively invest in converting [its] legacy T1-based network access to Metro Ethernet access."[109] The company's Chairman and CEO states that "over the past 12 months, [Cbeyond] put in place agreements to secure fiber assets, [it] began lighting buildings with [its] own fiber, [it] significantly increased the Metro Ethernet reach within [its] markets through a combination of owned and leased fiber as well as Ethernet-over-copper, [it] launched new cloud products, [it] retooled [its] sales force to more effectively address [its] new target market opportunities, [it] made significant investments in people,

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[101] *Id.*

[102] BT Americas, *Killer Facts*, http://www.btamericascareers.com/btamericas/facts/.

[103] *BT Connect — New Ethernet Connect Services Improving Freedom To Innovate*, PR Newswire (Nov. 17, 2011), http://www.prnewswire.com/news-releases-test/bt-connect---new-ethernet-connect-services-improving-freedom-to-innovate-134030733.html.

[104] MegaPath, *Secure Flexible Nationwide Network*, http://www.megapath.com/about/network/.

[105] *Id.*

[106] *Id.*

[107] *Id.*

[108] *Q4 2012 Cbeyond Inc. Earnings Conference Call — Final*, FD (Fair Disclosure) Wire, Transcript 022713a5006992.792 (Feb. 27, 2013) (statement by Cbeyond Chairman, CEO, and President James F. Geiger).

[109] Cbeyond Inc., Form 10-K, at 6 (SEC filed Mar. 7, 2013), http://www.sec.gov/Archives/edgar/data/1205727/000120572713000004/cbey-20121231x10k.htm.

processes and technology to become more proactive in addressing the emerging needs of [its] customers."[110]

Cbeyond's "dark fiber build is initially focused on providing fiber where [it] already ha[s] customer density," and the company's "stated goal is to have 1000 buildings lit by the end of [2013]."[111] Cbeyond stated that as of the end of 2012, it has "200 Cbeyond fiber 'lit' multi-tenant office buildings," as well as access to lit fiber on commercial terms in "over 5,000 3rd party fiber 'lit' multi-tenant office buildings."[112]

C. Other National Providers

1. Level 3

Level 3 (which completed its acquisition of Global Crossing in October 2011)[113] is the sixth largest provider of business Ethernet services in the United States.[114] Even prior to the acquisition, Level 3 reported that it had deployed "an extensive and diverse network"[115] and that "[o]ver 100,000 enterprise buildings" were "within 500 ft." of its U.S. network.[116] As of the end of 2012, Level 3 had approximately 26,000 route miles of metro fiber in North America, including operational, facilities-based local metropolitan networks in 119 markets in North America, and its intercity network spanned approximately 70,000 route miles.[117]

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[110] *Q4 2012 Cbeyond Inc. Earnings Conference Call — Final*, FD (Fair Disclosure) Wire, Transcript 022713a5006992.792 (Feb. 27, 2013) (statement by Cbeyond Chairman, CEO and President James F. Geiger).

[111] *Q3 2012 Cbeyond Inc. Earnings Conference Call — Final*, FD (Fair Disclosure) Wire, Transcript 110512a4928363.763 (Nov. 5, 2012) (statement by Cbeyond Chairman & CEO Jim Geiger). Cbeyond has signed "dark fiber agreements with Zayo and FiberLight:" "In March 2012, [it] executed agreements with Fiber Optic providers whereby [it] will acquire fiber network assets in multiple markets under 20-year capital leases, including an agreement for the indefeasible rights of use of certain fiber assets." *Q1 2012 Cbeyond Inc. Earnings Conference Call — Final*, FD (Fair Disclosure) Wire, Transcript 050212a4801261.761 (May 2, 2012) (statement by Cbeyond Chairman & CEO Jim Geiger); Cbeyond Inc., Form 10-Q, at 7 (SEC filed Nov. 6, 2012), http://www.sec.gov/Archives/edgar/data/1205727/000144530512003439/cbey-2012930x10q.htm.

[112] Cbeyond Inc., Form 10-K, at 6 (SEC filed Mar. 7, 2013), http://www.sec.gov/Archives/edgar/data/1205727/000120572713000004/cbey-20121231x10k.htm.

[113] Level 3 News Release, *Level 3 Completes Acquisition of Global Crossing* (Oct. 4, 2011), http://level3.mediaroom.com/index.php?s=23600&item=66513.

[114] Vertical Systems Group, *2012 U.S. Business Ethernet LEADERBOARD*.

[115] Level 3 Communications Press Release, *Level 3 Enhances Low-Latency Network Between Key U.S. Financial Centers* (Apr. 14, 2010), http://level3.mediaroom.com/index.php?s=23600&item=64959.

[116] Level 3 Communications, *2011 Annual Meeting of Stockholders Presentation*, at 3 (May 19, 2011), http://files.shareholder.com/downloads/LVLT/2168870475x0x469486/f0c304e5-b9ea-4c17-a9b6-bd3a8088c521/Level%203%20Communications%20Annual%20Meeting_May%202011_FINAL.pdf.

[117] Level 3 Communications Inc., Form 10-K, at 15-16 (SEC filed Feb. 26, 2013), http://www.sec.gov/Archives/edgar/data/794323/000079432313000003/lvlt-123112_10k.htm.

Level 3 offers a range of Ethernet and other broadband services, including Private Line,[118] Ethernet Private Line,[119] Ethernet Virtual Private Line,[120] and MPLS/IP VPN services.[121] Its enterprise customers include "mid to large size enterprises. . . ; large multinational customers; large enterprises. . . ; portals and large search enterprises; regional service providers; systems integrators; and software service providers."[122] Its wholesale customers "include domestic and international carriers; voice service providers, which include calling card companies, conferencing providers, and contact services that use VoIP technology . . . ; wireless providers; and broadband cable television operators."[123] Level 3 also serves "U.S. Federal government departments and agencies" and "U.S. states and municipalities as well as research and educational consortia."[124]

In April 2011, Level 3 announced that it is "providing Verizon Wireless with backbone infrastructure and cell-site backhaul solutions to support its ongoing rollout of its 4G Long Term Evolution (LTE) network."[125] Level 3 is "leveraging its recently launched Tower Access solution that combines connectivity to existing cell towers with a mix of new on-site tower construction and colocation at Level 3 sites."[126]

2. XO

XO is the seventh largest provider of business Ethernet services in the United States.[127] It states that it "offer[s] customers a broad range of managed voice, data and IP services in more than 85 metropolitan markets across the United States," and that it is "uniquely positioned as a leading local and national alternative to the Incumbent Local Exchange Carrier ('ILEC') for businesses and large enterprises."[128] XO's network includes 9,000 metropolitan route miles in

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[118] Level 3 Communications, *Private Line Services*, http://www.level3.com/en/products-and-services/data-and-internet/private-line-services/.

[119] Level 3 Communications, *Ethernet Private Line*, http://www.level3.com/en/products-and-services/data-and-internet/private-line-services/ethernet-private-line/.

[120] Level 3 Communications, *Ethernet Virtual Private Line*, http://www.level3.com/en/products-and-services/data-and-internet/virtual-private-network/ethernet-virtual-private-line/.

[121] Level 3 Communications, *MLS/IP VPN*, http://www.level3.com/en/products-and-services/data-and-internet/virtual-private-network/mpls-ip/.

[122] Level 3 Communications Inc., Form 10-K, at 14 (SEC filed Feb. 26, 2013), http://www.sec.gov/Archives/edgar/data/794323/000079432313000003/lvlt-123112_10k.htm.

[123] *Id.*

[124] *Id.*

[125] Level 3 Press Release, *Level 3 Helps Power Verizon Wireless 4G LTE Network Rollout* (Apr. 20, 2011), http://level3.mediaroom.com/index.php?s=23600&item=64813.

[126] *Id.*

[127] Vertical Systems Group, *2012 U.S. Business Ethernet LEADERBOARD*.

[128] XO Communications, *2010 Annual Report*, at 1, http://www.xo.com/SiteCollectionDocuments/about-xo/investor-relations/Annual_Reports/v214475_XOHoldings_10k_pressfinal.pdf.

41 U.S. cities, with more than 3,300 buildings on-net.[129] XO's customers include "[m]ore than 50% of the Fortune 500," "15 of the world's top 20 largest telecommunications companies," "8 of top 10 mobile wireless companies," "8 of 10 top cable companies," and "[t]he three most popular Internet search engines," as well as "Federal, state and local governments and agencies."[130]

XO provides a wide range of enterprise broadband services, including private lines and various forms of Ethernet, at speeds up to 100 Gbps.[131] XO also offers fixed wireless access — "[a] powerful wireless solution that provides XO Dedicated Internet Access, XO Ethernet Solutions, and MPLS IP-VPN services at locations that cannot be reached by fiber or copper lines."[132] Moreover, in addition to serving business customers, XO also "provides high-performance data, IP, and network transport services for national and international telecommunications carriers, cable companies, content providers, and mobile wireless companies."[133]

3. Zayo Group

The Zayo Group was founded in 2007 "to take advantage of the favorable Internet, data, and wireless growth trends driving the demand for bandwidth infrastructure services."[134] Since that time, the company has spent more than $3.3 billion in acquisitions, which include AboveNet, AGL Networks, American Fiber Solutions, Arialink, Citynet Fiber Network, Columbia Fiber Solutions, FiberNet Telecom Group, First Telecom Services, Indiana Fiber Works, Litecast, Memphis Networx, Onvoy Inc., PPL Telcom, USCarrier, VoicePipe; and assets from Adesta Communications, CenturyTel, Dolphini, MarquisNet, Northwest Telephone.[135] Zayo Group's fiber network spans 72,800 route miles and reaches more than 11,000 buildings in

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[129] XO Communications, *The XO Network* (Aug. 13, 2012), http://www.xo.com/SiteCollectionDocuments/carrier-services/Network%20Overview.pdf.

[130] XO Communications, *About XO Overview*, http://www.xo.com/about/Pages/overview.aspx.

[131] XO Communications, *Network Services*, http://www.xo.com/services/network/Pages/overview.aspx; XO Communications, *Private Line*, http://www.xo.com/services/network/Pages/private-line.aspx (XO Private Lines run at speeds ranging from "40 Gbps to 100 Gbps including DS-1 (1.5 Mbps), DS-3 (45 Mbps), and OC-N.").

[132] XO Communications, *Network Services*, http://www.xo.com/services/network/Pages/overview.aspx.

[133] XO Communications, *Telecommunications Services for Carrier and Service Providers*, http://www.xo.com/services/carrier/Pages/overview.aspx. *See* XO Communications, *Network Details*, http://www.xo.com/about/network/Pages/details.aspx ("XO currently offers Dedicated Internet Access and Carrier Transit connections via 39 Metro POPs in 31 markets. All DIA markets are connected to the closest XO IP Core Node; dual uplinks are provided from each Metro market into the closest intercity core node at speeds from OC-12c (622 Mbps) to 10 Gigabit Ethernet (10 Gbps).").

[134] Zayo Group, Form 10-Q, at 33 (SEC filed Feb. 8, 2013), http://www.sec.gov/Archives/edgar/data/1502756/000150275613000003/zayo-12312012xq2.htm.

[135] Zayo Group, *Zayo's Acquisition and Financial History*, http://www.zayo.com/company-history; Zayo Group, LLC, Form 10-Q, at 33-36 (SEC filed Feb. 8, 2013), http://www.sec.gov/Archives/edgar/data/1502756/000150275613000003/zayo-12312012xq2.htm; Zayo Group, Form 10-K, at 1-2 (SEC filed Sept. 14, 2012), http://www.sec.gov/Archives/edgar/data/1502756/000119312512392637/d411737d10k.htm.

45 states and Washington, D.C, including 2,845 cell towers, 546 data centers, and 553 carrier POPs.[136] Zayo states that, through its extensive network, it "now offers more than 100G in overall bandwidth to over 3,000 tenants, with 46 markets in service and 6 more markets under construction."[137] The Zayo Group's bandwidth infrastructure services include private line services from 45 Mbps to 10 Gbps, including DS1 through OC-192 services; Ethernet services from 100 Mbps to 10 Gbps; wavelength services from 2.5 Gbps to 10 Gbps; IP services from 10 Mbps to 10 Gbps; and fiber-to-the-tower services.[138]

Zayo is now a major supplier of wireless backhaul service and "has deployed over 4,000 metro route miles to support its [Fiber-To-The-Tower] network."[139] According to T-Mobile USA, "'Zayo is considered one of T-Mobile's top backhaul suppliers.'"[140]

D. Out-of-Region ILECs

In addition to the extensive competition from competitive providers, many incumbent local exchange carriers offer business Ethernet and mobile backhaul services outside of their legacy service areas.

AT&T operates what is considered to be one of the most extensive competitive fiber networks in the country,[141] and AT&T Business Solutions claims to serve "every Fortune 1000 company and tens of thousands of small- and medium-sized businesses."[142]

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[136] Zayo Group Press Release, *Zayo Lights Chicago to Memphis Route with 100G System* (Mar. 5, 2013), http://www.zayo.com/news/zayo-lights-chicago-memphis-route-100g-system.

[137] Zayo Group Press Release, *Zayo's Fiber-To-The-Tower Reaches 100G Bandwidth Milestone* (Feb. 1, 2012), http://www.zayo.com/news/zayos-fiber-tower-reaches-100g-bandwidth-milestone.

[138] Zayo Group, Form 10-K, at 8 (SEC filed Sept. 14, 2012), www.sec.gov/Archives/edgar/data/1502756/000119312512392637/d411737d10k.htm. *See* Zayo Group, *Zayo's Acquisition and Financial History*, http://www.zayo.com/company-history (Zayo is "the leading player in the Bandwidth Infrastructure space as evidenced by its impressive set of infrastructure assets, margin expansion and consistent track record of value creation.").

[139] Zayo Group Press Release, *Zayo's Fiber-To-The-Tower Reaches 100G Bandwidth Milestone* (Feb. 1, 2012), http://www.zayo.com/news/zayos-fiber-tower-reaches-100g-bandwidth-milestone. *See* Zayo Group, Form 10-K, at 3 (SEC filed Sept 14, 2012), http://www.sec.gov/Archives/edgar/data/1502756/000119312512392637/d411737d10k.htm (The Zayo Group "believe[s] the bandwidth needs for wireless backhaul will continue to grow with the continued adoption of smart phones, tablet PCs, netbooks, and other bandwidth-intensive mobile devices, as well as the escalating deployment of 4G networks," and that its "existing fiber-to-the-tower networks enable [Zayo] to sell additional bandwidth to [its] existing customers as their capacity needs grow, as well as sell [its] bandwidth infrastructure services to other wireless carriers located on these towers." Zayo "will continue to seek opportunities to expand [its] fiber-to-the-tower footprint where the terms of the contract provide an attractive return on [its] investment.").

[140] Zayo Group Press Release, *Zayo's Fiber-To-The-Tower Reaches 100G Bandwidth Milestone* (Feb. 1, 2012), http://www.zayo.com/news/zayos-fiber-tower-reaches-100g-bandwidth-milestone (statement by T-Mobile USA Vice President of Technical Systems and Business Operations Bryan Fleming).

[141] *See, e.g.*, New Paradigm Resources Group, *Competitive Carrier Report 2007*, Chapter 4 at Table 12 (21st ed. 2007); AT&T Corp., Form 10-K, at 5 (SEC filed Mar. 9, 2005), http://www.sec.gov/Archives/edgar/data/5907/000095012305002878/y06520e10vk.txt ("Our U.S. network is

Windstream was created in July 2006 through the combination of Alltel Corporation's landline operations and VALOR Communications.[143] The company states that at that time, it "operated in just 16 states with less than 24,000 miles of fiber, a modest business sales organization, and only a handful of lower-tier data centers."[144] "Today, [Windstream] ha[s] operations in 48 states and the District of Columbia, a local and long-haul fiber network spanning approximately 115,000 miles, a robust business sales division and 23 data centers."[145]

Windstream's growth follows a series of acquisitions, including the $2.3 billion purchase of PAETEC in November 2011,[146] which added more than 10,600 route miles of metro fiber, more than 36,700 total fiber route-miles, and 1,178 collocations "to support connectivity to enterprise businesses nationwide."[147] In 2010, Windstream acquired NuVox, "a leading regional business services provider based in Greenville, South Carolina," which "added a broad portfolio of Internet protocol ('IP') based services and an aggressive sales force," and "marked an important step in positioning the company to better serve business customers."[148] Windstream also acquired Hosted Solutions Acquisition of Raleigh, N.C., "a data center operator in the eastern United States" through which Windstream gained "the infrastructure to offer many advanced data services, such as cloud computing, managed hosting and managed services, on a wide scale" and "five state-of-the-art data centers and approximately 600 business customers."[149] Windstream's acquisition of Q-Comm Corporation's wholly owned subsidiary Kentucky Data Link, "a regional transport services provider with 30,000 miles of fiber," and Norlight, "a business services provider with approximately 5,500 customers," "significantly expanded [Windstream's] fiber network, allowing [it] to reach more business customers and to compete for more wireless backhaul contracts."[150]

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comprised of 55,543 route miles of long-haul backbone fiber optic cable, plus 21,655 additional route miles of local metropolitan fiber").

[142] AT&T, *Executive Bios: Andy Geisse, Chief Executive Officer — AT&T Business Solutions*, http://www.att.com/gen/investor-relations?pid=22323.

[143] Windstream Corp., Form 10-K, at 3 (SEC filed Feb. 20, 2013), http://www.sec.gov/Archives/edgar/data/1282266/000128226613000020/a201210k.htm.

[144] *Id.*

[145] *Id.* at 2.

[146] Windstream News Release, *Windstream Completes Acquisition of PAETEC* (Dec. 1, 2011), http://news.windstream.com/article_display.cfm?article_id=1349.

[147] PAETEC Press Release, *PAETEC Completes Acquisition of Cavalier Telephone* (Dec. 6, 2010), http://www.paetec.com/about-us/media-center/press-releases/2010/PAETEC-Completes-Acquisition-of-Cavalier-Telephone.html; Windstream Corp., Form 10-K, at 4 (SEC filed Feb. 20, 2013), http://www.sec.gov/Archives/edgar/data/1282266/000128226613000020/a201210k.htm.

[148] Windstream Corporation, Form 10-K, at 3 (SEC filed Feb. 20, 2013), http://www.sec.gov/Archives/edgar/data/1282266/000128226613000020/a201210k.htm.

[149] *Id.*

[150] *Id.*

E. Other Regional Providers

1. Alpheus Communications

Alpheus Communications is "[o]ne of the largest fiber network and data center operators in Texas" and provides "high bandwidth transport, Direct Internet Access (DIA) and data center services for carrier, government and enterprise customers."[151] Alpheus offers "a complete portfolio of Metro Ethernet, IP transit, regional long-haul and managed network services."[152] Its network consists of approximately 3,250 metro route miles,[153] and the company continues to expand its network.[154] Its metro coverage "extends to hundreds of accessible points in the primary commercial districts across [its] markets, reaching 88,000+ Ethernet qualified buildings and major data center locations throughout [Texas]."[155]

2. Broadview Networks

Broadview Networks states that it is "a leading communications and IT solutions provider to small and medium sized business . . . and large business, or enterprise customers nationwide, with a historical focus on markets across 10 states throughout the Northeast and

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[151] The Gores Group, *Alpheus Communications*, http://www.gores.com/portfolio/alpheus-communications/.

[152] Alpheus Communications Press Release, *Alpheus Communications Opens Another Dallas Data Center To Further Expand Services for Texas Enterprises* (Nov. 13, 2012), http://www.alpheus.net/press-releases/alpheus-communications-opens-another-dallas-data-center-to-further-expand-services-for-texas-enterprises/.

[153] The Gores Group Press Release, *The Gores Group Completes Acquisition of Alpheus Communications*, at 1 (Dec. 8, 2011), http://www.gores.com/wp-content/themes/gores2/news/news_PR_20111208.pdf. Alpheus was acquired by The Gores Group in December 2011 as "a tremendous opportunity to expand upon [its] current telecommunications holdings, particularly [its] fiber and high bandwidth transport services businesses." *Id.* (statement by The Gores Group Managing Director Ashley Abdo). The combination of Alpheus's network with First Communications, another Gores portfolio company, would result in more than 10,500 fiber route miles. *Id*.

[154] *See* Alpheus Communications Press Release, *Alpheus Communications Broadens Ethernet Services in South Texas with Significant Network Expansion to the Rio Grande Valley* (Oct. 8, 2012), http://www.alpheus.net/press-releases/alpheus-communications-broadens-ethernet-services-in-south-texas-with-significant-network-expansion-to-the-rio-grande-valley/ (in October 2012, Alpheus announced it "significantly expanded its capabilities to provide Ethernet services to the Rio Grande Valley," giving "more options to domestic carriers and Mexican concessionaires who need more interconnection points due to high demand for cross-border voice and data communications." This expansion "'was driven largely by customer demand to access more Texas markets on [Alpheus's] network, so now [Alpheus is] opening up additional markets and [it's] always on the lookout for potential new markets.") (citing Chip Robertson, Alpheus Communications Senior Vice president of carrier sales); Alpheus Communications Press Release, *Alpheus Communications Opens Another Dallas Data Center To Further Expand Services for Texas Enterprises* (Nov. 13, 2012), http://www.alpheus.net/press-releases/alpheus-communications-opens-another-dallas-data-center-to-further-expand-services-for-texas-enterprises/ (in November 2012, Alpheus announced the opening of a second data center in Dallas to "expand its data center and network footprint for enterprises in Dallas-Fort Worth . . . and throughout Texas."); Alpheus Communications Press Release, *Alpheus Communications Expands Fiber Network in Downtown Houston* (Jan. 10, 2013), http://www.alpheus.net/press-releases/alpheus-communications-expands-fiber-network-in-downtown-houston/ (in January 2013, Alpheus announced the expansion of its fiber network in Houston to several large downtown buildings).

[155] Alpheus Communications, *Carrier Solutions*, http://www.alpheus.net/carrier-solutions/.

Mid-Atlantic United States, including the major metropolitan markets of New York, Boston, Philadelphia, Baltimore and Washington, D.C."[156] Broadview's network consists of approximately 3,000 route miles of metro and long-haul fiber, and approximately 260 collocations.[157] The company has agreements to collocate its network equipment in approximately 400 lit buildings "in order to reduce [its] lastmile cost."[158] Broadview serves approximately 30,000 business customers.[159]

3. Cogent Communications

Cogent Communications serves "small and medium-sized businesses, communications service providers and other bandwidth-intensive organizations in North America and Europe," offering IP connectivity and "on-net Internet access services exclusively through its own facilities, which run from its network to its customers' premises," at speeds ranging from 100 megabits per second to 10 Gigabits per second.[160] Cogent's network consists of over 26,300 miles of metro fiber in North America and Europe.[161] Cogent's network reaches 1,180 corporate office buildings in the United States, including "the most prestigious office buildings in North America."[162] The company "plan[s] to continue to expand [its] network and to increase the number of on-net buildings [it] serve[s]."[163] Cogent's "most popular on-net service in North

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[156] Broadview Networks Holdings Inc., Form 10-Q, at 5 & 45 (SEC filed Nov. 9, 2012), http://www.sec.gov/Archives/edgar/data/1104358/000144530512000915/0001445305-12-000915-index.htm. In November 2012, Broadview announced the completion of its financial restructuring, resulting in "a stronger, delevered company" with "'greater financial flexibility and stronger growth opportunities.'" Broadview Networks Press Release, *Broadview Networks Completes Financial Restructuring* (Nov. 14, 2012), http://www.broadviewnet.com/PressNews/Press.asp?N=Broadview-Networks-Completes-Financial-Restructuring (statement by Broadview Networks President and Chief Executive Officer Michael K. Robinson).

[157] Broadview Networks Holdings Inc., Form 10-Q, at 15 (SEC filed Nov. 9, 2012), http://www.sec.gov/Archives/edgar/data/1104358/000144530512003617/broadviewnetworksholdingsi.htm.

[158] *Id.*

[159] Broadview Networks Holdings Inc., Form S-1, at 60 (SEC filed Mar. 29, 2013), http://www.sec.gov/Archives/edgar/data/1089083/000119312513134588/d497607ds1.htm.

[160] Cogent Communications Group Inc., Form 10-K, at 48 (SEC filed Feb. 27, 2013), http://www.sec.gov/Archives/edgar/data/1158324/000104746913001769/a2213021z10-k.htm.

[161] *Q3 2012 Cogent Communications. Earnings Conference Call — Final*, FD (Fair Disclosure) Wire, Transcript 110612a4927020.720 (Nov. 6, 2012) (statement by Cogent Communications CEO David Schaeffer).

[162] Cogent Communications, *Service List*, http://www.cogentco.com/?continent=North+America&country=United+States&state=&metro=&city=&site_type=OB&action=search&option=com_content&view=article&id=40; Cogent Communications, *Solutions for Carriers and Service Providers*, http://www.cogentco.com/en/products-and-services/solutions/solutions-for-carriers-and-service-providers. Cogent "operates data centers throughout North America and Europe that allow customers to collocate their equipment and access the Company's network." Cogent Communications Group Inc., Form 10-Q, at 7 (SEC filed Nov. 7, 2012), http://www.sec.gov/Archives/edgar/data/1158324/000110465912075320/a12-18755_110q.htm.

[163] Cogent Communications Group Inc., Form 10-K, at 27 (SEC filed Feb. 27, 2013), http://www.sec.gov/Archives/edgar/data/1158324/000104746913001769/a2213021z10-k.htm. *See Q4 2012 Cogent Communications Earnings Conference Call — Final*, FD (Fair Disclosure) Wire, Transcript 022113a4996120.720 (Feb. 21, 2013) (statement by Cogent Communications Chairman and CEO Dave Schaeffer: "We added 35

America" is its "Fast Ethernet service, which provides Internet access at 100 megabits per second."[164] Cogent also offers a Gigabit Ethernet service from 200 Mbps to 1 Gbps, which "are popular solutions for large Enterprise or NetCentric customers who need room to grow."[165] Cogent reports that it is utilizing approximately 17 percent of its capacity and that its "network has substantial additional capacity available to accommodate [its] revenue growth plans."[166]

4. Crown Castle International

Crown Castle International is "the leading provider of shared wireless infrastructure in the US, facilitating wireless carrier mobile broadband deployment."[167] The company "own[s], operate[s], build[s] and lease[s] towers, rooftops, and Distributed Antenna Systems (DAS) in prime markets for wireless communications."[168] The company explains that "DAS is a network of antennas connected by fiber to a communications hub designed to facilitate wireless communications services for multiple operators."[169]

Crown Castle claims that "[its] towers have a significant presence in 98 of the top 100 BTAs,"[170] and it has approximately 22,000 towers in these top 100 markets.[171] Crown Castle currently has "over 10,000 DAS indoor and outdoor nodes in operation or under construction at venues, universities, residential developments, municipalities and other locations,"[172] and it owns, leases, or manages approximately 29,800 towers in the U.S., including Puerto Rico.[173]

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buildings to our network in the fourth quarter and now have over 1,865 buildings directly connected to the fiber on our network.").

[164] Cogent Communications Group Inc., Form 10-K, at 6 (SEC filed Feb. 27, 2013), http://www.sec.gov/Archives/edgar/data/1158324/000104746913001769/a2213021z10-k.htm.

[165] Cogent Communications, *Ethernet Point to Point*, http://www.cogentco.com/en/products-and-services/ethernet-point-to-point.

[166] *Q3 2012 Cogent Communications. Earnings Conference Call — Final*, FD (Fair Disclosure) Wire, Transcript 110612a4927020.720 (Nov. 6, 2012) (statement by Cogent Communications CEO David Schaeffer).

[167] *Q4 2012 Crown Castle International Corp. Earnings Conference Call — Final*, FD (Fair Disclosure) Wire, Transcript 012413a4985792.792 (Jan. 24, 2013) (statement by Crown Castle International Corp. President and CEO Ben Moreland).

[168] Crown Castle, *About Us*, http://www.crowncastle.com/about-us/index.aspx.

[169] Crown Castle Press Release, *Crown Castle Announces Agreement To Acquire NextG Networks*, http://investor.crowncastle.com/phoenix.zhtml?c=107530&p=irol-newsArticle_print&ID=1640456&highlight.

[170] Crown Castle International Corp., Form 10-K, at 1 (SEC filed Feb. 12, 2013), http://www.sec.gov/Archives/edgar/data/1051470/000105147013000007/cci10-k123112.htm.

[171] *Q4 2012 Crown Castle International Corp. Earnings Conference Call — Final*, FD (Fair Disclosure) Wire, Transcript 012413a4985792.792 (Jan. 24, 2013) (statement by Crown Castle International Corp. SVP, CFO, and Treasurer Jay Brown).

[172] Crown Castle, *Distributed Antenna Systems Overview*, http://www.crowncastle.com/das/index.aspx.

[173] Crown Castle International Corp., Form 10-K, at 1 (SEC filed Feb. 12, 2013), http://www.sec.gov/Archives/edgar/data/1051470/000105147013000007/cci10-k123112.htm.

Crown Castle's four largest customers — Sprint, AT&T, Verizon Wireless, and T-Mobile — in the aggregate accounted for 76 percent of Crown Castle USA's 2012 revenues.[174]

5. DQE Communications

DQE Communications is a subsidiary of Duquesne Light Holdings.[175] In 2011, DQE "launched a major expansion of its network" by acquiring Met-Net Communications.[176] DQE operates "one of the most robust networks in the Pittsburgh metro area and surrounding region,"[177] in Allegheny, Armstrong, Beaver, Butler, Washington, and Westmoreland Counties in Pennsylvania.[178] DQE provides "fully scalable metro-ethernet, dark fiber, Internet and co-location services."[179] The company offers dedicated Internet access with symmetrical upload and download speeds from 1 Mbps to 1 Gbps, and "[e]xceptionally reliable, safe, simple managed Ethernet service with self-service scalability to adjust bandwidth in seconds, from 1 Mbps to 1 Gbps."[180] DQE states that its goal is "to grow and thrive," and that it has been "strategically growing, expanding [its] network to reach more buildings, carefully building redundancy and maintaining [its] commitment to performance at every step," to allow DQE "to not only reach more customers, but also to better serve the customers who are already [its] partners."[181]

6. Edison Carrier Solutions

Edison Carrier Solutions, a business unit of Southern California Edison, is a CLEC "focused on the wholesale carrier and large business market offering high capacity special access services at DS-3 and above."[182] Its customers "are regional, national, and international telecommunication carriers, cable television companies, satellite providers, wireless providers, internet service providers, system integrators, and large enterprises."[183] The company claims to operate "[o]ne of the largest competitive carrier fiber optic networks in Southern California"

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[174] *Id.*

[175] DQE Communications, *About DQE*, http://dqecom.com/about_dqe.php.

[176] DQE Press Release, *DQE Communications Acquires Met-Net Communications; Begins Major Expansion of Fiber Optic Network for Business Users* (July 7, 2012), http://www.prnewswire.com/news-releases/dqe-communications-acquires-met-net-communications-begins-major-expansion-of-fiber-optic-network-for-business-users-125157309.html.

[177] *Id.*

[178] DQE Communications, *About DQE*, http://dqecom.com/about_dqe.php.

[179] DQE Press Release, *DQE Communications Acquires Met-Net Communications; Begins Major Expansion of Fiber Optic Network for Business Users* (July 7, 2012), http://www.prnewswire.com/news-releases/dqe-communications-acquires-met-net-communications-begins-major-expansion-of-fiber-optic-network-for-business-users-125157309.html.

[180] DQE Communications, *Services Solutions*, http://www.dqecom.com/services_solutions.php.

[181] DQE Communications, *About DQE*, http://www.dqecom.com/about_dqe.php.

[182] Edison Carrier Solutions, *Home*, http://www.edisonconnect.com/home/default.asp.

[183] *Id.*

with more than 4,000 route miles of metro area fiber.[184] Its service area covers more than 50,000 square miles,[185] primarily in Los Angeles, Santa Monica, Oxnard, Irvine, Riverside, San Bernardino, and Victorville (LATA 730), and extends into Palm Springs (LATA 973) and its vicinity.[186] Edison Carrier Solutions "provide[s] on-net connectivity to 65+ network locations such as Carrier Hotels and POP locations, and 75+ ILEC central offices," and offers SONET, Wavelength, Ethernet and dark fiber solutions.[187] Edison Carrier Solutions offers managed wavelength service for "non-proprietary, point-to-point connection" at 2.5 Gbps, 10 Gbps, or Gigabit Ethernet speeds.[188] Edison Carrier Solutions also provides cell site backhaul.[189] The company's fiber network "is in proximity to wireless cell sites allowing [the company] to offer competitively priced backhaul services to mobile operators in this market."[190] Backhaul service is available from point-to-point DS1 to OC-12 speeds, or 10 Mbps to Gigabit Ethernet speeds.[191]

7. Expedient

Expedient offers Gigabit Internet access, "scalable in one-megabit increments up to a full gigabit," over its IP-over-fiber network to "save you up to 50% compared to traditional Telco-delivered services."[192] Expedient offers Ethernet Anywhere service, which "takes established Ethernet technology and extends it beyond the LAN environment into a WAN," with bandwidth selections from 3 Mbps to Ethernet networks "all the way to 40Mbps with tiered options in between."[193] The company also offers WAN connectivity at speeds "up to 10Gbps," over an all-Ethernet network.[194]

8. FiberLight

FiberLight states that it is "a premier provider of mission-critical, high performance networking services including Ethernet, Wavelengths, and IP, SONET, and Dark Fiber optical transport network solutions" to "telecom carriers, government, enterprise, content providers and

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[184] Edison Carrier Solutions, *Southern California Fiber Optic Network*, http://www.edisonconnect.com/network/default.asp.

[185] Edison Carrier Solutions, *Home*, http://www.edisonconnect.com/home/default.asp.

[186] Edison Carrier Solutions, *Southern California Fiber Optic Network*, http://www.edisonconnect.com/network/default.asp.

[187] *Id.*

[188] Edison Carrier Solutions, *Managed Wavelength Service*, http://www.edisonconnect.com/wireline/wavelength.asp.

[189] Edison Carrier Solutions, *Cell Site Backhaul*, http://www.edisonconnect.com/wireline/cellsite.asp.

[190] *Id.*

[191] *Id.*

[192] Expedient, *Gigabit Internet Access*, http://www.expedient.com/products/gigabit-internet-access.php.

[193] Expedient, *Ethernet Anywhere*, http://www.expedient.com/products/ethernet-anywhere.php.

[194] Expedient, *Wide Area Network (WAN) Connectivity*, http://www.expedient.com/products/wide-area-network.php.

web-centric businesses."[195] The company wholly owns its $1 billion, all-optical, 1,900 route-mile, "500,000 fiber mile network in key growth areas and offers robust metro networks in 23 metros within Georgia, Florida, Washington, D.C., Texas, Virginia and Maryland, as well as Wide Area Networking options at layer 1, 2 and 3 to major commercial hubs throughout the country."[196] FiberLight's network connects "nearly 1,000 commercial buildings and wireless towers."[197] FiberLight's services include "scalable and cost-effective point-to-point, point-to-multipoint and any-to-any metro Ethernet solutions" called FiberLight Light*Source* Ethernet services, which "deliver access to corporate networks, the Internet and network-based applications at ranges from 10Mbps to 10 Gbps."[198]

9. Fibertech Networks

Fibertech Networks states that it is "a leading provider of metro dark fiber and fiber-based transport services in mid-size cities throughout the eastern and central United States."[199] Fibertech "operates one of the fastest growing metro fiber optic infrastructures in the Northeast."[200] Fibertech "currently owns and operates a fiber optic network of more than 8,200 route miles, which contains more than 6,400 on-net buildings and nearly 2,100 cell sites with its fiber-only network infrastructure."[201] Its footprint includes networks in "Pittsburgh, PA; Indianapolis, IN; Columbus, OH; Providence, RI; Hartford, Bridgeport, Stamford, Danbury, New London and New Haven, CT; Springfield and Worcester, MA; Syracuse, Rochester, Buffalo, Binghamton, White Plains and Albany, NY; Wilmington, DE; Montgomery County, MD; Northern and Southern NJ; and suburban Philadelphia. The company recently announced plans to build new metro networks in five additional markets: Akron, Cincinnati, Cleveland, Dayton and Toledo, OH."[202] Fibertech states that "[w]ith this network, Fibertech serves wireline and wireless carriers, data centers, large enterprises, and facilities in the higher education, healthcare, and government verticals."[203]

Fibertech "plans to continue to expand its roster of networks to metro areas including, but not limited to: New Hampshire, Ohio, Pennsylvania, South Carolina, Tennessee, Virginia, Wisconsin, West Virginia, Georgia, Indiana, Kentucky, Maryland, Maine, Michigan, [and] North

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[195] FiberLight Press Release, *FiberLight and Ciena Help Leading Wireless Operators Manage Soaring Data Services Demand* (Feb. 21, 2013), http://www.fiberlight.com/fiberlight-and-ciena-help-leading-wireless-operators-manage-soaring-data-services-demand/.

[196] *Id.*

[197] FiberLight, *Wholesale*, http://www.fiberlight.com/network-solutions/wholesale/.

[198] FiberLight, *Ethernet*, http://www.fiberlight.com/services/ethernet/.

[199] Fibertech Networks, *At a Glance*, http://www.fibertech.com/docs/fibertech_ataglance.pdf.

[200] Fibertech Networks, *About Fibertech*, http://www.fibertech.com/about-fibertech/.

[201] Fibertech Networks Press Release, *Fibertech Networks Earns Customer Choice Awards* (Feb. 26, 2013), http://www.fibertech.com/news-events/press-archive/pressArchive.cfm?ID=245.

[202] Fibertech Networks, *About Fibertech*, http://www.fibertech.com/about-fibertech/.

[203] Fibertech Networks Press Release, *Fibertech Networks Earns Customer Choice Awards* (Feb. 26, 2013), http://www.fibertech.com/news-events/press-archive/pressArchive.cfm?ID=245.

Carolina."[204] Fibertech states that its "wide-range of transport solutions include: Private Line T1s to OC-192 connections; Ethernet from 3 Mbps to 10 Gbps; DWDM — Systems configured to provide 40+ 10G wavelengths; Fibrechannel, GDPS, Infinniband, ESCON, FICON; Business-class dedicated Internet access; Colocation; [and] Unlimited bandwidth of dark fiber."[205]

Fibertech's "optical connectivity is able to support wireless backhaul with over 600 Gig of data transport and is virtually limitless for dark fiber service."[206] Fibertech has experienced "[a]n increase in its wireless backhaul business," which has helped the company "boost revenue growth and its workforce."[207] Wireless backhaul is the fastest-growing part of Fibertech's business, accounting for 25 percent of its revenue.[208] "A lot of [Fibertech's] capital has been invested into extending fiber out to cell towers and other sites for wireless companies."[209]

10. FPL FiberNet

FPL FiberNet, a subsidiary of NextEra Energy, Inc., "delivers telecommunication services on its independently owned and operated fiber-optic network throughout most major metropolitan areas in Florida and Texas with additional long haul connectivity throughout the United States."[210] FPL FiberNet's metro networks "consist of approximately 2,500 miles of fiber, with connectivity to over a thousand on-net locations and more central offices, customer POPs, carrier hotels and international cable landing stations than any other wholesale carrier in Florida. [Its] network connects all international cable landing stations in South Florida to the NAP of the Americas and many other locations."[211] FPL FiberNet offers "Ethernet transport, Dedicated Internet Access, Managed Services, Colocation and SONET and SDH transport delivered over [its] carrier-grade MPLS network."[212]

In 2008, FPL FiberNet signed an agreement to provide T-Mobile USA with backhaul services in south Florida.[213] In announcing this agreement and similar agreements with Bright House Networks, IP Networks, and Zayo Bandwidth, T-Mobile remarked that "[e]ach of these

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[204] Fibertech Networks, *Future Markets*, http://www.fibertech.com/net_future.cfm.

[205] Fibertech Networks, *Enterprise Solutions*, http://www.fibertech.com/enterprise/.

[206] Fibertech Networks Press Release, *Fibertech Accomplishes Significant Network Milestones in 2012* (Aug. 7, 2012), http://www.fibertech.com/news-events/press-archive/pressArchive.cfm?y=2012&ID=239.

[207] Troy L. Smith, *Fibertech's Growth Gets Boost from Wireless Backhaul*, 28 Rochester B.J. 19 (Aug. 3, 2012).

[208] *Id.* (citing Fibertech vice president of sales and marketing Michael Hurley).

[209] *Id.* (quoting Fibertech vice president of sales and marketing Michael Hurley).

[210] FPL FiberNet, *About Us*, http://www.fplfibernet.com/about/index.shtml. *See also id.* ("With annual revenues of more than $15 billion and a growing presence in 24 states and Canada, NextEra Energy is widely recognized as one of the country's premier energy companies.").

[211] FPL FiberNet, *Fiber-Optic Network Overview*, http://www.fplfibernet.com/network/index.shtml.

[212] *Id.*

[213] T-Mobile Media Relations, *T-Mobile Signs New Backhaul Agreements for Six Major U.S. Markets* (Sept. 18, 2008), http://newsroom.t-mobile.com/articles/t-mobile-backhaul-agreement-new-bandwidth.

providers, in some of the most dynamic U.S. markets, operate an all-fiber network capable of providing capacity several times in excess of current requirements and allowing substantial room for future growth."[214]

11. Integra Telecom

Integra Telecom states that it is "one of the largest facilities-based providers of communication and networking services in the western United States."[215] Integra "connect[s] businesses of all sizes with advanced networking, communications and technology solutions in 35 metropolitan markets."[216] "Integra owns and operates an enterprise-class network consisting of a 5,000-mile long-haul fiber-optic network, 3,000-miles of metropolitan fiber and a nationwide IP/MPLS network."[217] Its fiber network "connects directly to more than 2,300 enterprise buildings and data centers," and "[t]hrough [its] expansive Ethernet-over-copper footprint, [Integra] can deliver high-bandwidth services to more than 400,000 businesses."[218] Integra serves more than 85,000 customers in Arizona, California, Colorado, Idaho, Minnesota, Montana, Nevada, North Dakota, Oregon, Utah and Washington.[219] In 2011, Integra Telecom invested $100 million in its fiber network.[220] The company has shifted its focus from small and mid-sized businesses to target larger customers and regional government agencies.[221] Integra Telecom's enterprise offering includes high-speed Internet services up to 10 Gbps.[222]

12. IP Networks

IP Networks states that it is "committed to delivering advanced data, Internet and cloud communication services and applications to commercial enterprises, government agencies, and service providers."[223] IP Networks operates a "400 route-mile core backbone that encompasses the metro San Francisco, Silicon Valley, and East Bay regions. In the Bay Area, IPN has over

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[214] *Id.*

[215] Integra Telecom, *About Integra*, http://www.integratelecom.com/about/Pages/default.aspx.

[216] *Id.*

[217] Integra Telecom Press Release, *Integra Selects Ciena for 100 Gigabit, Low Latency Network Expansion* (Apr. 10, 2013), http://www.integratelecom.com/about/news/Pages/Integra-Selects-Ciena-For-100-Gigabit,-Low-Latency-Network-Expansion.aspx.

[218] *Id.*

[219] Integra Telecom, *About Integra*, http://www.integratelecom.com/about/Pages/default.aspx.

[220] Brittany Danielson, *Integra's New CEO Reflects on Whirlwind Year*, CRN (Jan. 4, 2012), http://www.crn.com/news/networking/232301287/integras-new-ceo-reflects-on-whirlwind-year.htm?pgno=1.

[221] *See* Mike Rogoway, *Integra Telecom Plots a Rebound with New Owners, New Image and New Strategy*, Oregonian (Nov. 7, 2012), http://www.oregonlive.com/silicon-forest/index.ssf/2012/11/integra_telecom_plots_a_reboun.html.

[222] Integra Telecom, *Enterprise Products & Services: High Speed Internet*, http://www.integratelecom.com/enterprise/products/Pages/high-speed-internet-services.aspx.

[223] IP Networks, *About IP Networks*, http://ipnetworksinc.com/about-us/.

750 miles of deployed fiber to over 140 buildings and 33 data centers."[224] IPN's all-optical fiber network "is installed in the existing electrical utility conduit system that connects every building through the electrical grid,"[225] and "[t]hrough [its] utility partnerships, [IP Networks'] cost to provide these services is a fraction of what [its] competitors pay."[226] Furthermore, "[u]tilizing local utility infrastructure, IPN is able to build new middle mile networks across California's most rugged terrain. Most recently, IPN completed a 120+ mile build from the I-5 corridor to Eureka and the California coastside."[227]

IP Networks "delivers high bandwidth Metro Ethernet, Wide Area Network and Direct Internet solutions via myriad data center/collocation facilities, carrier points of presence (POP) as well as highly valued commercial office buildings and corporate campuses."[228] In 2008, IP Networks signed an agreement with T-Mobile USA to provide Ethernet backhaul services in the greater San Francisco area. According to T-Mobile, "[w]ith 1,060 cell sites, the contract with IP Networks is reported to be among the largest all-fiber backhaul agreements in the country."[229]

13. Lightower Fiber Networks

In December 2012, Lightower Fiber Networks and Sidera Networks agreed to be acquired by Berkshire Partners and merged in a series of transactions valued at over $2 billion.[230] These transactions "will enhance the ability of the Licensees to compete effectively in the medium and large enterprise, carrier and data center markets."[231] The merger is expected to close in the second quarter of 2013.[232]

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[224] IP Networks, *Our Network*, http://ipnetworksinc.com/our-network/.

[225] IP Networks, *Ethernet*, http://ipnetworksinc.com/ethernet/.

[226] IP Networks, *About IP Networks*, http://ipnetworksinc.com/about-us/.

[227] IP Networks, *Our Network*, http://ipnetworksinc.com/our-network/. *See* IP Networks Press Release, *Suddenlink Announces Plans To Enhance Local Internet Service* (May 19, 2011), http://ipnetworksinc.com/press-sudden/ (Suddenlink was "the first local cable company to announce an agreement with IP Networks for use of the new route.").

[228] IP Networks, *About IP Networks*, http://ipnetworksinc.com/about-us/.

[229] T-Mobile Media Relations, *T-Mobile Signs New Backhaul Agreements for Six Major U.S. Markets* (Sept. 18, 2008), http://newsroom.t-mobile.com/articles/t-mobile-backhaul-agreement-new-bandwidth.

[230] Lightower News Release, *Lightower & Sidera Announce Merger* (Dec. 27, 2012), http://www.lightower.com/lightower-sidera-news/.

[231] Consolidated Application for Consent to Transfer of Control at 4, *Light Tower Holdings LLC, Transferor, and LTS Buyer LLC, Transferee, Consolidated Application for Consent to Transfer Control of Subsidiaries of Light Tower Holdings LLC Possessing Blanket Domestic Section 214 Authority*, WC Docket No. 13-7 (FCC filed Jan. 8, 2013); Consolidated Application for Consent to Transfer of Control at 4, *Yankee Metro Partners, LLC, Transferor, and LTS Buyer LLC, Transferee, Consolidated Application for Consent to Transfer Control of Subsidiaries of Yankee Metro Partners, LLC, Possessing Blanket Domestic Section 214 Authority*, WC Docket No. 13-8 (FCC filed Jan. 8, 2013).

[232] Lightower News Release, *Lightower & Sidera Announce Merger* (Dec. 27, 2012), http://www.lightower.com/lightower-sidera-news/.

Lightower Fiber Networks states that it is "the premier metro fiber and bandwidth provider in the Northeast. With over 6,600 route miles of fiber providing access to over 3,500 service locations, Lightower offers unparalleled regional density, performance, and reliability."[233] Lightower's network is available "throughout New England, Metro New York, Long Island, New Jersey, and the Hudson Valley," on "geographically diverse routes from many other carriers."[234] According to Lightower, "25% of Fortune 500 companies, telecommunications carriers, wireless carriers, financial services companies, health care organizations, schools, universities, governments, and other enterprises — they all trust Lightower with their mission critical networks."[235] Lightower offers "Ethernet, Dark Fiber, [Dedicated and Burstable] Internet Access, Wavelengths, SONET, Colocation, Nationwide Long Haul, Video Transport, Private Managed Optical Networks, Wireless Backhaul, Ultra-Low Latency Solutions, Financial Solutions, Media Solutions, [and] Carrier Solutions" — "All-fiber networking solutions from 10 Mbps to 100 Gbps."[236]

14. LS Networks

LS Networks states that it "operates one of Oregon's largest, most geographically dispersed SONET based backbones," and it is "equipped to implement and manage legacy TDM services for T1/DS1 up through OC-48 or even higher in some applications."[237] LS Networks states it "is poised to deliver bandwidth ranges from 1 Mg to 10 Gigs across 80+ points of presence throughout the state."[238] LS Networks' fiber network exceeds 2,000 route miles.[239]

15. NTS

NTS, Inc. (formerly Xfone, Inc.) states that it is "a holding and managing company providing, through [its] subsidiaries, integrated communications services which include voice, video and data over [its] Fiber-To-The-Premise ('FTTP') and other networks," with operations in Texas, Mississippi, and Louisiana.[240] The company "also serves customers in Arizona, Colorado, Kansas, New Mexico, and Oklahoma."[241] NTS Communications offers "extensive, advanced, and reliable network coverage from Albuquerque, New Mexico to Biloxi, Mississippi."[242] NTS recently reported that it had "connected its first fiber customer in Iowa Park, Texas further expanding the Company's 'PRIDE' [FTTP] Network. . . . NTS' ongoing

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[233] Lightower Fiber Networks, *Home*, http://www.lightower.com/.

[234] Lightower Fiber Networks, *Our Network*, http://www.lightower.com/network/.

[235] Lightower Fiber Networks, *About Us*, http://www.lightower.com/company/about-us/.

[236] Lightower Fiber Networks, *Home*, http://www.lightower.com/.

[237] LS Networks, *Services*, http://www.lsnetworks.net/services.htm.

[238] *Id.*

[239] LS Networks, *Company Highlights and Recent Milestones*, http://www.lsnetworks.net/milestones.htm.

[240] NTS Inc., Form 10-K, at 3 (SEC filed Mar. 21, 2013), http://www.sec.gov/Archives/edgar/data/1126216/000135448813001375/nts_10k.htm.

[241] *Id.*

[242] NTS Inc., *Wholesale Business Services*, http://www.ntscom.com/index.php/business/wholesale/.

fiber build out, when completed, is expected to reach 19 new communities, bringing the Company's total FTTP passings to approximately 50,000."[243] NTS "has established its fiber network in the towns of Lubbock, Levelland, Smyer, Wolfforth, Littlefield, Burkburnett, Brownfield, Whitharral, Slaton, Meadow, Wilson, Lamesa, Ropesville and Plainview, Texas and has also launched its fiber network in select metro areas of Wichita Falls. Additionally, the Company has also begun construction of its fiber network in Hammond, Louisiana." [244]

16. TelePacific Corp.

TelePacific's network consists of 50,000 fiber strand miles with 29 switches, 192 lit buildings, and more than 370 collocations in 273 wire centers.[245]

17. Tower Cloud

Tower Cloud is a "carrier-grade backhaul solutions" provider.[246] Tower Cloud "operates in Tier 1 markets like Atlanta, Ga., but [it] also operate[s] in a lot of Tier 2 and Tier 3 markets like Augusta, Ga. and Montgomery, Ala., and even smaller rural markets in southern Georgia, including some of the interstate highways like the corridor along Interstate 75."[247] Tower Cloud's CEO says that "[w]ireless backhaul is all [Tower Cloud] do[es]."[248] Tower Cloud continues to expand its network in the southeastern United States. In April 2012, Tower Cloud announced the launch of a new, fiber backhaul network in Dothan and southeastern Alabama to "support[] the rollout of 4th Generation wireless services to residents in the Dothan and Fort Rucker, Alabama areas" with 48 cell sites and more than 135 route miles of fiber.[249] In June 2012, Tower Cloud announced the launch of a new, fiber backhaul network in Columbus and LaGrange, Georgia, serving 84 cell sites through more than 252 route miles of fiber.[250] In October 2012, Tower Cloud announced the completion of a 1,225-route mile network across south Georgia that will "initially serve as the backbone for 13 fiber rings and will support more

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[243] NTS Press Release, *NTS Connects First Fiber Customer in Iowa Park, Texas* (Jan. 11, 2013), http://www.ntscom.com/index.php/investor_relations/press_releases/individual_release/nts_connects_first_fiber_customer_in_iowa_park_texas/.

[244] *Id.*

[245] TelePacific Communications, *Financial Quick Facts*, http://www.telepacific.com/pdfs/Financial%20Quick%20Facts.pdf.

[246] Tower Cloud, *Services*, http://towercloud.com/services/.

[247] FierceTelecom, *Taking a New Look at Wireless Backhaul with Ron Mudry of Tower Cloud* (Nov. 15, 2011), http://www.fiercetelecom.com/special-reports/taking-new-look-wireless-backhaul-ron-mudry-tower-cloud (statement by Tower Cloud founder and CEO Ron Mudry).

[248] *Id.* (statement by Tower Cloud founder and CEO Ron Mudry).

[249] Tower Cloud Press Release, *Tower Cloud Launches New Fiber Optic Based Backhaul Network in Dothan, Alabama* (Apr. 16, 2012), http://towercloud.com/tower-cloud-launches-new-fiber-optic-based-backhaul-network-in-dothan-alabama/.

[250] Tower Cloud Press Release, *Tower Cloud Launches New Fiber Optic Based Backhaul Network in Columbus and LaGrange, Georgia* (June 26, 2012), http://towercloud.com/tower-cloud-launches-new-fiber-optic-based-backhaul-network-in-columbus-and-lagrange-georgia/.

than 300 cell sites stretching from Thomasville to the West and Waycross to the East."[251] In March 2013, TowerCloud announced that it was introducing its "Generation Independent Network," a "major expansion and upgrade of its Atlanta, Georgia network" comprised of "9 network rings connecting more than 300 towers across the metro area."[252]

F. Fixed Wireless Providers

1. Airband Communications

Airband Communications claims to be "the largest fixed wireless provider serving businesses in the United States."[253] Airband "provides service in 17 markets" — Atlanta, Austin, Baltimore, Dallas, Fort Lauderdale, Fort Worth, Houston, Las Vegas, Los Angeles, Miami, Orange County, Orlando, Philadelphia, Phoenix, San Antonio, San Diego, and Washington, D.C. — and "is expanding quickly."[254] Airband "delivers data services from 1 Mbps to over GigE speeds and a full suite of VoIP services including hosted VoIP and VoIP/SIP trunking."[255] Airband's wholesale program for carriers, resellers, and enhanced service providers includes point-to-point service "to deliver private line services quickly, even in crowded metropolitan areas," "from 10 Mbps up to GigE speeds," and broadcasts signals "up to 20 miles, with clear line of sight."[256] Airband "focuses solely on businesses," and serves "more than 3,500 customers nationwide."[257]

2. AirTap Communications

AirTap was "founded to create new wireless access means to better serve remote business communications in any environment."[258] AirTap's "'high-speed, low-latency broadband

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[251] Tower Cloud Press Release, *Tower Cloud Launches New Fiber Optic Network Across South Georgia To Deliver Backhaul for 4G Wireless Services* (Oct. 9, 2012), http://towercloud.com/tower-cloud-launches-new-fiber-optic-network-across-south-georgia-to-deliver-backhaul-for-4g-wireless-services/.

[252] Tower Cloud Press Release, *Tower Cloud Introduces Its Generation Independent Network in Atlanta, Georgia* (Mar. 11, 2013), http://towercloud.com/tower-cloud-introduces-its-generation-independent-network-in-atlanta-georgia/.

[253] Airband Communications, *Airband Profile* (2012), http://www.airband.com/about-us/airband-profile/.

[254] *Id.*; Airband Communications Press Release, *Airband Communications Expands Fixed-Wireless Network to Orlando* (Jan. 10, 2013), http://www.airband.com/press-releases/airband-communications-expands-fixed-wireless-network-to-orlando/; Airband Communications Press Release, *Airband and Sparkplug Communications Announce Merger, Creating the Largest Fixed-Wireless Company in the U.S. Serving Businesses* (Aug. 19, 2010), http://www.airband.com/press-releases/airband-and-sparkplug/.

[255] Airband Communications Press Release, *Airband and Sparkplug Communications Announce Merger, Creating the Largest Fixed-Wireless Company in the U.S. Serving Businesses* (Aug. 19, 2010), http://www.airband.com/press-releases/airband-and-sparkplug/.

[256] Airband Communications, *Point-to-Point Data Services* (2013), http://www.airband.com/services/point-to-point-data/; Airband Communications, *Point-to-Point Service* (2013), http://www.airband.com/pdf/point-to-point-120810.pdf.

[257] Airband Communications, *Airband Communications Launches National Wholesale Program* (Aug. 18, 2008), http://www.airband.com/press-releases/airband-communications-launches-national-wholesale-program/.

[258] AirTap Communications, *About AirTap*, http://www.airtap.com/about.htm.

coverage range is now in excess of 20,000 square miles of the [Gulf of Mexico] and its coastal areas.'"[259] "AirTap's core backhaul network employs high-capacity packet microwave solutions that drive next-generation IP services. AirTap's carrier-grade point-to-point technologies transmit broadband voice, video and data through state-of-the-art systems providing step change in capacity, nodal intelligence and spectral efficiency."[260]

3. Believe Wireless Broadband

Believe Wireless Broadband is "a full-service, carrier neutral, Internet service provider that specializes in providing wireless solutions for both businesses and individuals in the Baltimore area."[261] Believe Wireless Broadband provides fixed wireless service in Baltimore City, Baltimore County, and parts of Anne Arundel and Howard Counties in Maryland, and is expanding its service area to Washington, D.C. by January 1, 2013.[262] Believe Wireless Broadband can assist customers by "connecting buildings across town or installing a wireless infrastructure on [their] campus or multi-tenant complex," providing "faster speeds than cable, DSL, T-1, DS-3 or fiber lines at a lower cost."[263] The company has "direct GigE connections to both major carrier hotels in Baltimore and direct connections to Tier 1 providers," which "insures redundancy, low latency and blazing fast speeds."[264]

4. Conterra Broadband Services

Conterra Ultra Broadband "utilizes Part 101 FCC licensed microwave frequencies to augment and extend existing fiber optic backbones and rings in locations where the economics of deploying fixed-line media for middle and last-mile broadband connectivity are unfavorable."[265] Conterra also "utilizes its own fiber, customized, FCC-licensed microwave networks and aggregated fiber from smaller providers to reach sites with high-capacity Ethernet services, at cost effective rates."[266] Conterra currently "operates in 25 states and is the 6th largest holder of FCC microwave licenses in the country."[267] It "provides Ethernet broadband services and high bandwidth Internet via FCC-licensed microwave links and fiber to nearly 2,000 sites."[268]

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[259] AirTap Communications Press Release, *AirTap Communications Announces Expansion Milestones* (Aug. 31, 2010), http://www.airtap.com/milestones.htm (statement by AirTap President David Heximer).

[260] AirTap Communications, *High Speed Backhaul*, http://www.airtap.com/high-speed-backhaul.htm.

[261] Believe Wireless, *About Us*, http://www.believebroadband.com/aboutus.php.

[262] Barbara Pash, *Baltimore County Wireless Firm Moves into DC Market*, Bmore Media (Dec. 11, 2012), http://bmoremedia.com/innovationnews/baltimoreinternet121112.aspx.

[263] Believe Wireless, *About Us*, http://www.believebroadband.com/aboutus.php.

[264] *Id.*

[265] Initial Comments of Conterra Ultra Broadband, LLC at 1-2, *Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 02-6 (FCC filed July 9, 2010).

[266] Conterra Broadband Services, *About Conterra*, http://www.conterra.com/about-conterra/.

[267] Conterra Broadband Services, *High Speed, Low Latency Financial Exchange Connectivity* (2012), http://www.conterra.com/solutions/low-latency-connectivity/.

[268] *Id.*

Conterra's network includes approximately 500-owned communications towers, approximately 10,000 microwave route miles, and approximately 700 route miles of fiber owned by Conterra.[269] Conterra states that in the last 10 years, it has "connected more than two thousand sites in 25 states, bringing high-capacity transport service to the cellular and educational industries."[270] Conterra's broadband network is scalable "from 10Mbps to 10 Gbps" and offers multiple user interfaces — "fast Ethernet, Gig-Ethernet, OC-n."[271]

5. One Ring Networks

One Ring Networks claims to be "one of the largest hybrid fiber / fixed wireless carriers in the United States."[272] One Ring Networks "utilizes its fiber and fixed wireless assets to provide high speed, reliable and scalable voice and data circuits in the Atlanta and Dallas / Fort Worth areas,"[273] and its "fiber & fixed wireless network coverage is always expanding."[274] One Ring states that its fixed wireless offering is "a secure and reliable alternative to the traditional ILEC," providing "an easily scalable, all Ethernet solution that can be installed in days, not weeks," at "speeds ranging from 1.5Mbps to 1000Mbps."[275]

6. Towerstream

Towerstream provides "broadband services to commercial customers and deliver[s] access over a wireless network transmitting over both regulated and unregulated radio spectrum."[276] Towerstream also "utiliz[es] 4G Technology to deliver advanced, high-speed Internet access to businesses in 13 markets including New York City, Boston, Los Angeles, Chicago, the San Francisco Bay Area, Miami, Seattle, Dallas/Fort Worth, Houston, Philadelphia, Nashville, Las Vegas/Reno, and the greater Providence area."[277] Towerstream "now ha[s] more than 10,000 Wi-Fi and small cell antenna locations available for lease."[278] In the third quarter of 2012, Towerstream served approximately 3,600 customers, a 12.5-percent increase over the

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[269] Conterra Broadband Services, *Corporate Facts*, http://www.conterra.com/wp-content/uploads/2013/02/Conterra-Corporate-Facts-Sheet_020713FINAL.pdf.

[270] Conterra Broadband Services, *About Conterra*, http://www.conterra.com/about-conterra/.

[271] Conterra Broadband Services, *K-12 High Speed WANs* (2012), http://www.conterra.com/solutions/school-high-speed-wans/.

[272] One Ring Networks, *History*, http://www.oneringnetworks.com/AboutUs/History.aspx.

[273] *Id.*

[274] One Ring Networks, *Atlanta*, http://www.oneringnetworks.com/Markets/Atlanta.aspx#; One Ring Networks, *Dallas* (2012), http://www.oneringnetworks.com/Markets/Dallas.aspx.

[275] One Ring Networks, *Fixed Wireless*, http://www.oneringnetworks.com/Services/FixedWireless.aspx.

[276] Towerstream Corp., Form 10-K, at 45 (SEC filed Mar. 18, 2013), http://www.sec.gov/Archives/edgar/data/1349437/000114420413015859/0001144204-13-015859-index.htm.

[277] Towerstream, *About Towerstream*, http://www.towerstream.com/Company.aspx.

[278] Towerstream Press Release, *Towerstream Reports Third Quarter 2012 Results* (Nov. 8, 2012), http://ir.towerstream.com/releasedetail.cfm?ReleaseID=719876 (statement by Towerstream President and Chief Executive Officer Jeffrey Thompson).

3,200 customers it served one year earlier.[279] Towerstream is installing nodes at a pace that "puts [it] on track to reach [its] 5,000 goal node sometime in Q1 2013."[280] Towerstream states that it "delivers a reliable last mile solution" with "guaranteed 99.99% uptime" because it "owns [its] entire network and is not dependent on the local exchange carrier network of phone wires or cable."[281] Towerstream's bandwidth options range from 0.5 Mbps to 1.5 Gbps.[282]

[279] Towerstream Corp., Form 10-Q, at 17 (SEC filed Nov. 8, 2012), http://www.sec.gov/Archives/edgar/data/1349437/000114420412060416/v325613_10q.htm.

[280] *Q2 2012 Towerstream Inc. Earnings Conference Call — Final*, FD (Fair Disclosure) Wire, Transcript 080912a4865756.756 (Aug. 9, 2012) (statement by Towerstream Inc. President and CEO Jeff Thompson).

[281] Towerstream, *About Our Company*, http://www.towerstream.com/Company.aspx.

[282] Towerstream Corp., Form 10-K, at 5 (SEC filed Mar. 18, 2013), http://www.sec.gov/Archives/edgar/data/1349437/000114420413015859/v335936_10k.htm.